I 3

```
   CCCCCCCCCCCC  LLL                  IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                  IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                  IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
CCC              LLL                     III        UUU         UUU        TTT        LLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL      IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL      IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL      IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
```

```
**FILE**ID**SETACT                                              I  1




  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT    AAAAAA      CCCCCCCC  TTTTTTTTTT
  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT    AAAAAA      CCCCCCCC  TTTTTTTTTT
SS          EE              TT      AA      AA  CC              TT
SS          EE              TT      AA      AA  CC              TT
SS          EE              TT      AA      AA  CC              TT
SS          EE              TT      AA      AA  CC              TT
  SSSSSS    EEEEEEEE        TT      AA      AA  CC              TT
  SSSSSS    EEEEEEEE        TT      AA      AA  CC              TT
        SS  EE              TT      AAAAAAAAAA  CC              TT
        SS  EE              TT      AAAAAAAAAA  CC              TT
        SS  EE              TT      AA      AA  CC              TT          ....
        SS  EE              TT      AA      AA  CC              TT          ....
SSSSSSSS    EEEEEEEEEE      TT      AA      AA    CCCCCCCC      TT          ....
SSSSSSSS    EEEEEEEEEE      TT      AA      AA    CCCCCCCC      TT          ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
MODULE setact   (
                IDENT = 'V04-000',
                ADDRESSING_MODE(EXTERNAL=GENERAL,
                                NONEXTERNAL=LONG_RELATIVE)
                ) =
BEGIN

!
!****************************************************************************
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!****************************************************************************
!


!++
! FACILITY:     Set
!
! ABSTRACT:
!
!       This module contains the action routines for SET FILE, SET DIRECTORY,
!       and SET VOLUME.
!
! ENVIRONMENT:
!
!       Vax native, privileged user mode
!
!--
!
! AUTHOR:       Gerry Smith             CREATION DATE: 04-Aug-1981
!
! MODIFIED BY:
!
!       V03-005 GAS0047         Gerry Smith             15-Feb-1982
!               Only get the file name for SET FILE/ENTER=filename.
!               The $PARSE is moved to SETFILE, so that stickiness
!               can be applied with the input file.
!
!       V03-004 GAS0038         Gerry Smith             2-Feb-1982
!               Add /GLOBAL_BUFFERS action routine for SET FILE.
```

```
1 !
1 !      V03-003 GAS0030         Gerry Smith             1-Jan-1982
1 !              Add /RETENTION action routine, for SET VOLUME.
1 !
1 !      V03-002 GAS0026         Gerry Smith             18-Dec-1981
1 !              Use shared message file, and lower fatal messages to
1 !              simple error messages.
1 !
1 !      V03-001 GAS0021         Gerry Smith             30-Nov-1981
1 !              Allow zero values for group and member of UIC
1 !
1 !**
```

```
;    71          0070  1 LIBRARY 'SYS$LIBRARY:LIB';
;    72          0071  1 LIBRARY 'SYS$LIBRARY:CLIMAC';
;    73          0072  1 LIBRARY 'SYS$LIBRARY:TPAMAC';
;    74          0073  1
;    75          0074  1 STRUCTURE
;    76          0075  1     BBLOCK [O, P, S, E; N] =
;    77          0076  1         [N]
;    78          0077  1         (BBLOCK + O)<P,S,E>;
```

```
1 FORWARD ROUTINE
1                                               ! Action routines for:
1       acc_act,                                ! /ACCESSED             (VOLUME)
1       back_act,                               ! /BACKUP               (FILE)
1       noback_act,                             ! /NOBACKUP             (FILE)
1       data_act,                               ! /DATA_CHECK           (VOLUME,FILE)
1       enter_act,                              ! /ENTER                (FILE)
1       erase_act,                              ! /ERASE_ON_DELETE      (FILE)
1       noerase_act,                            ! /NOERASE_ON_DELETE    (FILE)
1       exp_act,                                ! /EXPIRATION_DATE      (FILE)
1       noexp_act,                              ! /NOEXPIRATION_DATE    (FILE)
1       ext_act,                                ! /EXTENSION            (FILE,VOLUME)
1       fprot_act,                              ! /FILE_PROTECTION      (VOLUME)
1       gbuf_act,                               ! /GLOBAL_BUFFERS       (FILE)
1       journal_act,                            ! /JOURNAL              (FILE)
1       label_act,                              ! /LABEL                (VOLUME)
1       owner_act,                              ! /OWNER_UIC            (ALL)
1       retent_act,                             ! /RETENTION            (VOLUME)
1       test_char,                              ! action routine used by retent_act
1       user_act,                               ! /USER_NAME            (VOLUME)
1       vprot_act,                              ! /PROTECTION           (VOLUME)
1       vrsn_act,                               ! /VERSION_LIMIT        (DIRECTORY,FILE)
1       window_act;                             ! /WINDOWS              (VOLUME)
1
1 EXTERNAL ROUTINE
1       calculate_max,
1       sys$fao,
1       lib$tparse,
1       lib$cvt_time,
1       lib$cvt_dtime,
1       lib$cvt_dtb;
1
1 !
1 ! External data references
1 !
1 EXTERNAL
1       rename_buf : VECTOR[nam$c_maxrss,BYTE],     ! Name buffer for /ENTER
1       file_name : VECTOR[2],                      ! File name descriptor
1       file_rlf : BBLOCK[nam$c_bln],               ! Related name block
1
1       set$l_status,                           ! Status return for SET dispatcher
1       set$a_cliwork;                          ! CLI work area in SET dispatcher
1
1 !
1 ! Literal data definitions
1 !
1 LITERAL
1       true = 1,
1       false = 0;
1
```

```
!
! Define the qualifier flag bits used by all SET FILE/DIRECTORY/VOLUME
!
GLOBAL LITERAL
    $EQULST
        (QUAL_,,1,1,
        (access,),                      ! ACCESSED              (VOLUME)
        (backup,),                      ! BACKUP                (FILE)
        (nobackup,),                    ! NOBACKUP              (FILE)
        (confirm,),                     ! CONFIRM               (ALL)
        (data,),                        ! DATA_CHECK            (FILE, VOLUME)
        (enter,),                       ! ENTER                 (FILE)
        (eof,),                         ! END_OF_FILE           (FILE)
        (erase,),                       ! ERASE_ON_DELETE       (FILE)
        (noerase,),                     ! NOERASE_ON_DELETE     (FILE)
        (expi,),                        ! EXPIRATION_DATE       (FILE)
        (exte,),                        ! EXTENSION             (FILE, VOLUME)
        (fprot,),                       ! FILE_PROTECTION       (VOLUME)
        (gbuf,)                                 ! GLOBAL_BUFFERS        (FILE)
        (journal,),                     ! JOURNAL               (FILE)
        (label,),                       ! LABEL                 (VOLUME)
        (log,),                         ! LOG                   (ALL)
        (nodi,),                        ! NODIRECTORY           (FILE)
        (owner,),                       ! OWNER_UIC             (ALL)
        (parent,),                      ! OWNER=PARENT          (FILE)
        (remove,),                      ! REMOVE                (FILE)
        (retent,),                      ! RETENTION             (VOLUME)
        (rprot,),                       ! RECORD_PROTECTION     (FILE, VOLUME)
        (trunc,),                       ! TRUNCATE              (FILE)
        (username,),                    ! USERNAME              (VOLUME)
        (vprot,),                       ! PROTECTION            (VOLUME)
        (vrsn,),                        ! VERSION_LIMIT         (FILE, DIRECTORY)
        (windows,));                    ! WINDOWS               (VOLUME)

!
! Define the DATA_CHECK option bits
!
GLOBAL LITERAL
    $EQULST
        (DATA_,,1,1,
        (read,),
        (noread,),
        (write,),
        (nowrite,));
!
! Define the JOURNAL option bits
!
GLOBAL LITERAL
    $EQULST
        (JRNL_,,1,1,
        (ai,),
        (noai,),
        (at,),
        (noat,),
        (bi,),
        (nobi,),
        (ru,),
;  188          P 0185  1          (noru,),
;  189          P 0186  1          (rum,),
;  190            0187  1          (norum,));
;  191            0188  1
;  192            0189  1
```

```
1 !
1 ! Declare external references
1 !
1 EXTERNAL
1     setfile$flags : BITVECTOR[32],                     ! Qualifier flags
1     setfile$dflags : BITVECTOR[32],                    ! Data_check flag word
1     setfile$jflags : BITVECTOR[32],                    ! Journal flag word
1     acc_value,                                         ! LRU value
1     exp_value : BBLOCK[8],                             ! Expiration date
1     exte_value,                                        ! Extension quantity
1     fprot_value,                                       ! File_protection value
1     gbuf_value,                                        ! Global buffer count
1     label_value : VECTOR[2],                           ! Volume label descriptor
1     uic_value,                                         ! Owner uic
1     group,                                             ! Group number
1     member,                                            ! Member number
1     user_value : VECTOR[2],                            ! Username string descriptor
1     retmin_value : VECTOR[2],                          ! Minimum retention time quadword
1     retmax_value : VECTOR[2],                          ! Maximum retention time quadword
1     vprot_value,                                       ! Volume protection value
1     vrsn_value,                                        ! Version limit
1     window_value;                                      ! Window length
1
1
1 !
1 ! Declare the error messages
1 !
1 EXTERNAL LITERAL
1     set$_facility,                             ! SET facility code
1     set$_operreq,                              ! OPER privilege required
1     set$_writeerr;                             ! Error accessing file
```

```
;  226        0221  1 !
;  227        0222  1 ! Define the TPARSE block
;  228        0223  1 !
;  229        0224  1 OWN
;  230        0225  1     tparse_block : BBLOCK[tpa$k_length0]        ! TPARSE block
;  231        0226  1                 INITIAL(tpa$k_count0,
;  232        0227  1                         tpa$m_blanks OR
;  233        0228  1                         tpa$m_abbrev);
;  234        0229  1
;   236          0230  1  !
;   237          0231  1  ! TPARSE table for /DATA_CHECK options
;   238          0232  1  !
;   239          0233  1  $INIT_STATE (dc_state,dc_keys);
;   240          0234  1
;   241        P 0235  1  $STATE  (optstart,
;   242        P 0236  1          (tpa$_eos,tpa$_exit,,data_write,setfile$dflags),! default is WRITE
;   243          0237  1          (tpa$_lambda,getoption));                       ! fall thru to options
;   244          0238  1
;   245        P 0239  1  $STATE  (getoption,
;   246        P 0240  1          ('READ',,,1^data_read,setfile$dflags),          ! READ present
;   247        P 0241  1          ('WRITE',,,1^data_write,setfile$dflags),        ! WRITE present
;   248        P 0242  1          ('NOREAD',,,1^data_noread,setfile$dflags),      ! NOREAD present
;   249          0243  1          ('NOWRITE',,,1^data_nowrite,setfile$dflags));   ! NOWRITE present
;   250          0244  1
;   251        P 0245  1  $STATE  (,
;   252        P 0246  1          (tpa$_eos,tpa$_exit),                           ! either end of line
;   253          0247  1          (',',getoption));                               ! or get rid of the comma
;   254          0248  1
```

```
:     1 !
:     1 ! TPARSE table for /OWNER_UIC option
:     1 !
:     1 $INIT_STATE (owner_state,owner_keys);
:     1
:   P 1 $STATE  (ownerstart,
:   P 1         ('PARENT',tpa$_exit,,1^qual_parent,setfile$flags),      ! Check for PARENT
:   P 1         ('['),                                  ! Look for square bracket
:     1         ('<'));                                 ! Or a squiggle
:     1
:   P 1 $STATE  (,
:     1         (tpa$_octal,,,,group));                 ! Get group number
:     1
:   P 1 $STATE  (,
:     1         (','));                                 ! Get rid of the comma
:     1
:   P 1 $STATE  (,
:     1         (tpa$_octal,,,,member));                ! Get member number
:     1
:   P 1 $STATE  (,
:   P 1         (']'),                                  ! Get end bracket
:     1         ('>'));
:     1
:   P 1 $STATE  (,
:     1         (tpa$_eos,tpa$_exit));                  ! Clean-up
```

```
;  282          0274  1 !
;  283          0275  1 ! TPARSE table for /JOURNAL option
;  284          0276  1 !
;  285          0277  1 $INIT_STATE (journal_state, journal_keys);
;  286          0278  1
;  287        P 0279  1 $STATE  (getjopts,
;  288        P 0280  1         ('AI',,,1^jrnl_ai,setfile$jflags),         ! AI journaling
;  289        P 0281  1         ('AT',,,1^jrnl_at,setfile$jflags),         ! AT journaling
;  290        P 0282  1         ('BI',,,1^jrnl_bi,setfile$jflags),         ! BI journaling
;  291        P 0283  1         ('NOAI',,,1^jrnl_noai,setfile$jflags),     ! No AI journaling
;  292        P 0284  1         ('NOAT',,,1^jrnl_noat,setfile$jflags),     ! No AT journaling
;  293        P 0285  1         ('NOBI',,,1^jrnl_nobi,setfile$jflags),     ! No BI journaling
;  294        P 0286  1         ('NORU',,,1^jrnl_noru,setfile$jflags),     ! No RU journaling
;  295        P 0287  1         ('NORUM',,,1^jrnl_norum,setfile$jflags),   ! No RUM journaling
;  296        P 0288  1         ('RU',,,1^jrnl_ru,setfile$jflags),         ! RU journaling
;  297          0289  1         ('RUM',,,1^jrnl_rum,setfile$jflags));      ! RUM journaling
;  298          0290  1
;  299        P 0291  1 $STATE  (,
;  300        P 0292  1         (tpa$_eos,tpa$_exit),                      ! Either the end
;  301          0293  1         (',',getjopts));                           ! Or more to come
;  303          0294   1 !
;  304          0295   1 ! TPARSE table for protection
;  305          0296   1 !
;  306          0297   1
;  307          0298   1 $INIT_STATE (pro_state, pro_keys);
;  308          0299   1
;  309        P 0300   1 $STATE  (NEXTPRO,
;  310        P 0301   1         ('SYSTEM', SYPR,, %X'000F0000', fprot_value),
;  311        P 0302   1         ('OWNER',  OWPR,, %X'00F00000', fprot_value),
;  312        P 0303   1         ('GROUP',  GRPR,, %X'0F000000', fprot_value),
;  313        P 0304   1         ('WORLD',  WOPR,, %X'F0000000', fprot_value)
;  314          0305   1         );
;  315          0306   1
;  316        P 0307   1 $STATE  (SYPR,
;  317        P 0308   1         (':'),
;  318        P 0309   1         ('='),
;  319        P 0310   1         (TPA$_LAMBDA, ENDPRO)
;  320          0311   1         );
;  321          0312   1
;  322        P 0313   1 $STATE  (SYPRO,
;  323        P 0314   1         ('R', SYPRO,, %X'0001', fprot_value),
;  324        P 0315   1         ('W', SYPRO,, %X'0002', fprot_value),
;  325        P 0316   1         ('E', SYPRO,, %X'0004', fprot_value),
;  326        P 0317   1         ('P', SYPRO,, %X'0004', fprot_value),
;  327        P 0318   1         ('D', SYPRO,, %X'0008', fprot_value),
;  328        P 0319   1         ('L', SYPRO,, %X'0008', fprot_value),
;  329        P 0320   1         (TPA$_LAMBDA, ENDPRO)
;  330          0321   1         );
;  331          0322   1
;  332        P 0323   1 $STATE  (OWPR,
;  333        P 0324   1         (':'),
;  334        P 0325   1         ('='),
;  335        P 0326   1         (TPA$_LAMBDA, ENDPRO)
;  336          0327   1         );
;  337          0328   1
;  338        P 0329   1 $STATE  (OWPRO,
;  339        P 0330   1         ('R', OWPRO,, %X'0010', fprot_value),
;  340        P 0331   1         ('W', OWPRO,, %X'0020', fprot_value),
;  341        P 0332   1         ('E', OWPRO,, %X'0040', fprot_value),
;  342        P 0333   1         ('P', OWPRO,, %X'0040', fprot_value),
;  343        P 0334   1         ('D', OWPRO,, %X'0080', fprot_value),
;  344        P 0335   1         ('L', OWPRO,, %X'0080', fprot_value),
;  345        P 0336   1         (TPA$_LAMBDA, ENDPRO)
;  346          0337   1         );
;  347          0338   1
;  348        P 0339   1 $STATE  (GRPR,
;  349        P 0340   1         (':'),
;  350        P 0341   1         ('='),
;  351        P 0342   1         (TPA$_LAMBDA, ENDPRO)
;  352          0343   1         );
;  353          0344   1
;  354        P 0345   1 $STATE  (GRPRO,
;  355        P 0346   1         ('R', GRPRO,, %X'0100', fprot_value),
;  356        P 0347   1         ('W', GRPRO,, %X'0200', fprot_value),
;  357        P 0348   1         ('E', GRPRO,, %X'0400', fprot_value),
;  358        P 0349   1         ('P', GRPRO,, %X'0400', fprot_value),
;  359        P 0350   1         ('D', GRPRO,, %X'0800', fprot_value),
;     360        P 0351  1          ('L', GRPRO,, %X'0800', fprot_value),
;     361        P 0352  1          (TPA$_LAMBDA, ENDPRO)
;     362          0353  1          );
;     363          0354  1
;     364        P 0355  1  $STATE  (WOPR,
;     365        P 0356  1          (':'),
;     366        P 0357  1          ('='),
;     367        P 0358  1          (TPA$_LAMBDA, ENDPRO)
;     368          0359  1          );
;     369          0360  1
;     370        P 0361  1  $STATE  (WOPRO,
;     371        P 0362  1          ('R', WOPRO,, %X'1000', fprot_value),
;     372        P 0363  1          ('W', WOPRO,, %X'2000', fprot_value),
;     373        P 0364  1          ('E', WOPRO,, %X'4000', fprot_value),
;     374        P 0365  1          ('P', WOPRO,, %X'4000', fprot_value),
;     375        P 0366  1          ('D', WOPRO,, %X'8000', fprot_value),
;     376        P 0367  1          ('L', WOPRO,, %X'8000', fprot_value),
;     377        P 0368  1          (TPA$_LAMBDA, ENDPRO)
;     378          0369  1          );
;     379          0370  1
;     380        P 0371  1  $STATE  (ENDPRO,
;     381        P 0372  1          (',', NEXTPRO),
;     382        P 0373  1          (TPA$_EOS, TPA$_EXIT)
;     383          0374  1          );
;  385            0375  1 !
;  386            0376  1 ! Tparse table for /RETENTION option
;  387            0377  1 !
;  388            0378  1 $INIT_STATE (ret_state, ret_keys)
;  389            0379  1
;  390          P 0380  1 $STATE  (retstart,
;  391            0381  1         ((get_delta),,,,retmin_value));          ! Get the first delta string
;  392            0382  1
;  393          P 0383  1 $STATE  (,
;  394          P 0384  1         (','),                                   ! If a comma, get next string
;  395            0385  1         (tpa$_eos,tpa$_exit));                   ! Else exit
;  396            0386  1
;  397          P 0387  1 $STATE  (,
;  398            0388  1         ((get_delta),,,,retmax_value));          ! Get the next delta string
;  399            0389  1
;  400          P 0390  1 $STATE  (,
;  401            0391  1         (tpa$_eos,tpa$_exit));                   ! And exit
;  402            0392  1
;  403          P 0393  1 $STATE  (get_delta,
;  404          P 0394  1         (tpa$_any,get_delta,test_char),          ! Get next character in delta string
;  405            0395  1         (tpa$_lambda,tpa$_exit));
```

```
    1 GLOBAL ROUTINE acc_act (option_block, callback) =
    1 !++
    1 !
    1 ! This is the action routine for the /ACCESSED qualifier.  It first checks to
    1 ! make sure that the process has OPER privilege.  If so, then the ACCESS value
    1 ! is obtained and bounds checking is performed on it.
    1 !
    1 !--
    2 BEGIN
    2
    2 OWN privs : BBLOCK[8];            ! Place to store the process privileges
    2
    2 LOCAL
    2     status,                       ! Status return
    2     desc : BBLOCK[dsc$c_s_bln];   ! General descriptor
    2
    2 MAP option_block : REF BBLOCK;    ! Define the CLI block
    2
    2 !
    2 ! Call $SETPRV to get the current privileges of the process.  If the process
    2 ! does not have OPER, then signal an error and stop.
    2 !
  P 3 IF NOT (status = $SETPRV(ENBFLG = 1,              ! Enable
  P 3                          PRVADR = 0,              ! No new privileges
  P 3                          PRMFLG = 1,              ! Get current privileges
    3                          PRVPRV = privs))
    2 THEN SIGNAL_STOP(.status);
    2
    2 IF NOT .privs[prv$v_oper] THEN SIGNAL_STOP(set$_operreq);
    2
    2 !
    2 ! The process has the correct privilege, so go ahead and get the value
    2 !
    2
    2 acc_value = 3;                    ! Set up the default
    2
    2 !
    2 ! If a value was specified, use it; otherwise, use the default.
    2 !
    2 IF .option_block[cli$w_qdvalsiz] EQL 0
    2 THEN RETURN true;
    2
    2 !
    2 ! Convert the value
    2 !
    3 IF NOT (status = LIB$CVT_DTB(.option_block[cli$w_qdvalsiz],
    3                             .option_block[cli$a_qdvaladr],
    3                             acc_value))
    2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,  ! Signal a syntax error
    2                 1,
    2                 option_block[cli$q_qdvaldesc],
    2                 .status)
    2 ELSE
    3     BEGIN
    4     IF NOT (.acc_value GEQ 0          ! Check that value is in range
    4                AND
    4             .acc_value LEQ 255)
```

```
;            3      THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,      ! If not, exit with an error.
;            3                       1,
;            3                       option_block[cli$q_qdvaldesc],
;            3                       set$_facility^16 + shr$_valerr + sts$k_error);
;            2      END;
;            2  RETURN true;
;            1  END;


                                                  .TITLE  SETACT
                                                  .IDENT  \V04-000\

                                                  .PSECT  _LIB$KEY1$,NOWRT,  SHR,  PIC,1

                               00000 ;TPA$KEYST0
                                     U.9:      .BLKB   0
                   44 41 45 52 00000 ;TPA$KEYST
                                     U.11:     .ASCII  \READ\                          :
                            FF 00004           .BYTE   -1                              :
                               00005 ;TPA$KEYST0
                                     U.15:     .BLKB   0
                45 54 49 52 57 00005 ;TPA$KEYST
                                     U.17:     .ASCII  \WRITE\                         :
                            FF 0000A           .BYTE   -1                              :
                               0000B ;TPA$KEYST0
                                     U.21:     .BLKB   0
             44 41 45 52 4F 4E 0000B ;TPA$KEYST
                                     U.23:     .ASCII  \NOREAD\                        :
                            FF 00011           .BYTE   -1                              :
                               00012 ;TPA$KEYST0
                                     U.27:     .BLKB   0
          45 54 49 52 57 4F 4E 00012 ;TPA$KEYST
                                     U.29:     .ASCII  \NOWRITE\                       :
                            FF 00019           .BYTE   -1                              :
                            FF 0001A ;TPA$KEYFILL
                                     U.33:     .BYTE   -1                              :
                               0001B ;TPA$KEYST0
                                     U.39:     .BLKB   0
             54 4E 45 52 41 50 0001B ;TPA$KEYST
                                     U.41:     .ASCII  \PARENT\                        :
                            FF 00021           .BYTE   -1                              :
                            FF 00022 ;TPA$KEYFILL
                                     U.48:     .BYTE   -1                              :
                               00023 ;TPA$KEYST0
                                     U.59:     .BLKB   0
                         49 41 00023 ;TPA$KEYST
                                     U.61:     .ASCII  \AI\                            :
                            FF 00025           .BYTE   -1                              :
                               00026 ;TPA$KEYST0
                                     U.65:     .BLKB   0
                         54 41 00026 ;TPA$KEYST
                                     U.67:     .ASCII  \AT\                            :
                            FF 00028           .BYTE   -1                              :
                               00029 ;TPA$KEYST0
                                     U.71:     .BLKB   0
                         49 42 00029 ;TPA$KEYST
                                     U.73:     .ASCII  \BI\                            :
```

```
                         FF  0002B            .BYTE   -1                                      ;
                             0002C  ;TPA$KEYST0
                                    U.77:     .BLKB   0
             49  41  4F  4E  0002C  ;TPA$KEYST
                                    U.79:     .ASCII  \NOAI\                                  ;
                         FF  00030            .BYTE   -1                                      ;
                             00031  ;TPA$KEYST0
                                    U.83:     .BLKB   0
             54  41  4F  4E  00031  ;TPA$KEYST
                                    U.85:     .ASCII  \NOAT\                                  ;
                         FF  00035            .BYTE   -1                                      ;
                             00036  ;TPA$KEYST0
                                    U.89:     .BLKB   0
             49  42  4F  4E  00036  ;TPA$KEYST
                                    U.91:     .ASCII  \NOBI\                                  ;
                         FF  0003A            .BYTE   -1                                      ;
                             0003B  ;TPA$KEYST0
                                    U.95:     .BLKB   0
             55  52  4F  4E  0003B  ;TPA$KEYST
                                    U.97:     .ASCII  \NORU\                                  ;
                         FF  0003F            .BYTE   -1                                      ;
                             00040  ;TPA$KEYST0
                                    U.101:    .BLKB   0
         4D  55  52  4F  4E  00040  ;TPA$KEYST
                                    U.103:    .ASCII  \NORUM\                                 ;
                         FF  00045            .BYTE   -1                                      ;
                             00046  ;TPA$KEYST0
                                    U.107:    .BLKB   0
                     55  52  00046  ;TPA$KEYST
                                    U.109:    .ASCII  \RU\                                    ;
                         FF  00048            .BYTE   -1                                      ;
                             00049  ;TPA$KEYST0
                                    U.113:    .BLKB   0
                 4D  55  52  00049  ;TPA$KEYST
                                    U.115:    .ASCII  \RUM\                                   ;
                         FF  0004C            .BYTE   -1                                      ;
                         FF  0004D  ;TPA$KEYFILL
                                    U.119:    .BYTE   -1                                      ;
                             0004E  ;TPA$KEYST0
                                    U.125:    .BLKB   0
     4D  45  54  53  59  53  0004E  ;TPA$KEYST
                                    U.127:    .ASCII  \SYSTEM\                                ;
                         FF  00054            .BYTE   -1                                      ;
                             00055  ;TPA$KEYST0
                                    U.133:    .BLKB   0
         52  45  4E  57  4F  00055  ;TPA$KEYST
                                    U.135:    .ASCII  \OWNER\                                 ;
                         FF  0005A            .BYTE   -1                                      ;
                             0005B  ;TPA$KEYST0
                                    U.141:    .BLKB   0
         50  55  4F  52  47  0005B  ;TPA$KEYST
                                    U.143:    .ASCII  \GROUP\                                 ;
                         FF  00060            .BYTE   -1                                      ;
                             00061  ;TPA$KEYST0
                                    U.149:    .BLKB   0
         44  4C  52  4F  57  00061  ;TPA$KEYST
                                    U.151:    .ASCII  \WORLD\                                 ;
```

```
               FF  00066          .BYTE   -1                                        ;
               FF  00067 ;TPA$KEYFILL
                         U.157:   .BYTE   -1                                        ;

                                  .PSECT  _LIB$STATE$,NOWRT,  SHR,  PIC,1

                   00000 DC_STATE::
                                  .BLKB   0
                   00000 OPTSTART:
                                  .BLKB   0
             71F7  00000 ;TPA$TYPE
                         U.2:     .WORD   29175                                     ;
        00000000*  00002 ;TPA$ADDR
                         U.3:     .LONG   <<SETFILE$DFLAGS-U.3>-4>                  ;
        00000003   00006 ;TPA$MASK
                         U.4:     .LONG   3                                         ;
             FFFF  0000A ;TPA$TARGET
                         U.5:     .WORD   -1                                        ;
             15F6  0000C ;TPA$TYPE
                         U.6:     .WORD   5622                                      ;
            0000*  0000E ;TPA$TARGET
                         U.8:     .WORD   <<U.7-U.8>-2>                             ;
                   00010 ;GETOPTION
                         U.7:     .BLKB   0
             6100  00010 ;TPA$TYPE
                         U.12:    .WORD   24832                                     ;
        00000000*  00012 ;TPA$ADDR
                         U.13:    .LONG   <<SETFILE$DFLAGS-U.13>-4>                 ;
        00000002   00016 ;TPA$MASK
                         U.14:    .LONG   2                                         ;
             6101  0001A ;TPA$TYPE
                         U.18:    .WORD   24833                                     ;
        00000000*  0001C ;TPA$ADDR
                         U.19:    .LONG   <<SETFILE$DFLAGS-U.19>-4>                 ;
        00000008   00020 ;TPA$MASK
                         U.20:    .LONG   8                                         ;
             6102  00024 ;TPA$TYPE
                         U.24:    .WORD   24834                                     ;
        00000000*  00026 ;TPA$ADDR
                         U.25:    .LONG   <<SETFILE$DFLAGS-U.25>-4>                 ;
        00000004   0002A ;TPA$MASK
                         U.26:    .LONG   4                                         ;
             6503  0002E ;TPA$TYPE
                         U.30:    .WORD   25859                                     ;
        00000000*  00030 ;TPA$ADDR
                         U.31:    .LONG   <<SETFILE$DFLAGS-U.31>-4>                 ;
        00000010   00034 ;TPA$MASK
                         U.32:    .LONG   16                                        ;
             11F7  00038 ;TPA$TYPE
                         U.34:    .WORD   4599                                      ;
             FFFF  0003A ;TPA$TARGET
                         U.35:    .WORD   -1                                        ;
             142C  0003C ;TPA$TYPE
                         U.36:    .WORD   5164                                      ;
            0000*  0003E ;TPA$TARGET
                         U.37:    .WORD   <<U.7-U.37>-2>                            ;
                   00040 OWNER_STATE::
```

```
                                       .BLKB   0
                00040 OWNERSTART:
                                       .BLKB   0
        7100    00040 ;TPA$TYPE
                      U.42:            .WORD   28928                                      ;
   00000000*    00042 ;TPA$ADDR
                      U.43:            .LONG   <<SETFILE$FLAGS-U.43>-4>                   ;
   00080000     00046 ;TPA$MASK
                      U.44:            .LONG   524288                                     ;
        FFFF    0004A ;TPA$TARGET
                      U.45:            .WORD   -1                                         ;
        005B    0004C ;TPA$TYPE
                      U.46:            .WORD   91                                         ;
        043C    0004E ;TPA$TYPE
                      U.47:            .WORD   1084                                       ;
        45F4    00050 ;TPA$TYPE
                      U.49:            .WORD   17908                                      ;
   00000000*    00052 ;TPA$ADDR
                      U.50:            .LONG   <<GROUP-U.50>-4>                           ;
        042C    00056 ;TPA$TYPE
                      U.51:            .WORD   1068                                       ;
        45F4    00058 ;TPA$TYPE
                      U.52:            .WORD   17908                                      ;
   00000000*    0005A ;TPA$ADDR
                      U.53:            .LONG   <<MEMBER-U.53>-4>                          ;
        005D    0005E ;TPA$TYPE
                      U.54:            .WORD   93                                         ;
        043E    00060 ;TPA$TYPE
                      U.55:            .WORD   1086                                       ;
        15F7    00062 ;TPA$TYPE
                      U.56:            .WORD   5623                                       ;
        FFFF    00064 ;TPA$TARGET
                      U.57:            .WORD   -1                                         ;
                00066                  .BLKB   2
                00068 JOURNAL_STATE::
                                       .BLKB   0
                00068 GETJOPTS:
                                       .BLKB   0
        6100    00068 ;TPA$TYPE
                      U.62:            .WORD   24832                                      ;
   00000000*    0006A ;TPA$ADDR
                      U.63:            .LONG   <<SETFILE$JFLAGS-U.63>-4>                  ;
   00000002     0006E ;TPA$MASK
                      U.64:            .LONG   2                                          ;
        6101    00072 ;TPA$TYPE
                      U.68:            .WORD   24833                                      ;
   00000000*    00074 ;TPA$ADDR
                      U.69:            .LONG   <<SETFILE$JFLAGS-U.69>-4>                  ;
   00000008     00078 ;TPA$MASK
                      U.70:            .LONG   8                                          ;
        6102    0007C ;TPA$TYPE
                      U.74:            .WORD   24834                                      ;
   00000000*    0007E ;TPA$ADDR
                      U.75:            .LONG   <<SETFILE$JFLAGS-U.75>-4>                  ;
   00000020     00082 ;TPA$MASK
                      U.76:            .LONG   32                                         ;
        6103    00086 ;TPA$TYPE
```

```
                                U.80:    .WORD   24835                                   ;
          00000000* 00088 ;TPA$ADDR
                                U.81:    .LONG   <<SETFILE$JFLAGS-U.81>-4>               ;
          00000004  0008C ;TPA$MASK
                                U.82:    .LONG   4                                       ;
              6104  00090 ;TPA$TYPE
                                U.86:    .WORD   24836                                   ;
          00000000* 00092 ;TPA$ADDR
                                U.87:    .LONG   <<SETFILE$JFLAGS-U.87>-4>               ;
          00000010  00096 ;TPA$MASK
                                U.88:    .LONG   16                                      ;
              6105  0009A ;TPA$TYPE
                                U.92:    .WORD   24837                                   ;
          00000000* 0009C ;TPA$ADDR
                                U.93:    .LONG   <<SETFILE$JFLAGS-U.93>-4>               ;
          00000040  000A0 ;TPA$MASK
                                U.94:    .LONG   64                                      ;
              6106  000A4 ;TPA$TYPE
                                U.98:    .WORD   24838                                   ;
          00000000* 000A6 ;TPA$ADDR
                                U.99:    .LONG   <<SETFILE$JFLAGS-U.99>-4>               ;
          00000100  000AA ;TPA$MASK
                                U.100:   .LONG   256                                     ;
              6107  000AE ;TPA$TYPE
                                U.104:   .WORD   24839                                   ;
          00000000* 000B0 ;TPA$ADDR
                                U.105:   .LONG   <<SETFILE$JFLAGS-U.105>-4>              ;
          00000400  000B4 ;TPA$MASK
                                U.106:   .LONG   1024                                    ;
              6108  000B8 ;TPA$TYPE
                                U.110:   .WORD   24840                                   ;
          00000000* 000BA ;TPA$ADDR
                                U.111:   .LONG   <<SETFILE$JFLAGS-U.111>-4>              ;
          00000080  000BE ;TPA$MASK
                                U.112:   .LONG   128                                     ;
              6509  000C2 ;TPA$TYPE
                                U.116:   .WORD   25865                                   ;
          00000000* 000C4 ;TPA$ADDR
                                U.117:   .LONG   <<SETFILE$JFLAGS-U.117>-4>              ;
          00000200  000C8 ;TPA$MASK
                                U.118:   .LONG   512                                     ;
              11F7  000CC ;TPA$TYPE
                                U.120:   .WORD   4599                                    ;
              FFFF  000CE ;TPA$TARGET
                                U.121:   .WORD   -1                                      ;
              142C  000D0 ;TPA$TYPE
                                U.122:   .WORD   5164                                    ;
             0000*  000D2 ;TPA$TARGET
                                U.123:   .WORD   <<GETJOPTS-U.123>-2>                    ;
                    000D4 PRO_STATE::
                                         .BLKB   0
                    000D4 NEXTPRO:       .BLKB   0
              7100  000D4 ;TPA$TYPE
                                U.128:   .WORD   28928                                   ;
          00000000* 000D6 ;TPA$ADDR
                                U.129:   .LONG   <<FPROT_VALUE-U.129>-4>                 ;
          000F0000  000DA ;TPA$MASK
```

```
                          U.130:   .LONG     983040                                  ;
         0000*  000DE  ;TPA$TARGET
                          U.132:   .WORD     <<U.131-U.132>-2>                       ;
         7101   000E0  ;TPA$TYPE
                          U.136:   .WORD     28929                                   ;
     00000000*  000E2  ;TPA$ADDR
                          U.137:   .LONG     <<FPROT_VALUE-U.137>-4>                 ;
      00F00000  000E6  ;TPA$MASK
                          U.138:   .LONG     15728640                                ;
         0000*  000EA  ;TPA$TARGET
                          U.140:   .WORD     <<U.139-U.140>-2>                       ;
         7102   000EC  ;TPA$TYPE
                          U.144:   .WORD     28930                                   ;
     00000000*  000EE  ;TPA$ADDR
                          U.145:   .LONG     <<FPROT_VALUE-U.145>-4>                 ;
      0F000000  000F2  ;TPA$MASK
                          U.146:   .LONG     251658240                               ;
         0000*  000F6  ;TPA$TARGET
                          U.148:   .WORD     <<U.147-U.148>-2>                       ;
         7503   000F8  ;TPA$TYPE
                          U.152:   .WORD     29955                                   ;
     00000000*  000FA  ;TPA$ADDR
                          U.153:   .LONG     <<FPROT_VALUE-U.153>-4>                 ;
      F0000000  000FE  ;TPA$MASK
                          U.154:   .LONG     -268435456                              ;
         0000*  00102  ;TPA$TARGET
                          U.156:   .WORD     <<U.155-U.156>-2>                       ;
                00104  ;SYPR
                          U.131:   .BLKB     0
         003A   00104  ;TPA$TYPE
                          U.158:   .WORD     58                                      ;
         003D   00106  ;TPA$TYPE
                          U.159:   .WORD     61                                      ;
         15F6   00108  ;TPA$TYPE
                          U.160:   .WORD     5622                                    ;
         0000*  0010A  ;TPA$TARGET
                          U.162:   .WORD     <<U.161-U.162>-2>                       ;
                0010C  SYPR0:   .BLKB     0
         7052   0010C  ;TPA$TYPE
                          U.163:   .WORD     28754                                   ;
     00000000*  0010E  ;TPA$ADDR
                          U.164:   .LONG     <<FPROT_VALUE-U.164>-4>                 ;
      00000001  00112  ;TPA$MASK
                          U.165:   .LONG     1                                       ;
         0000*  00116  ;TPA$TARGET
                          U.166:   .WORD     <<SYPR0-U.166>-2>                       ;
         7057   00118  ;TPA$TYPE
                          U.167:   .WORD     28759                                   ;
     00000000*  0011A  ;TPA$ADDR
                          U.168:   .LONG     <<FPROT_VALUE-U.168>-4>                 ;
      00000002  0011E  ;TPA$MASK
                          U.169:   .LONG     2                                       ;
         0000*  00122  ;TPA$TARGET
                          U.170:   .WORD     <<SYPR0-U.170>-2>                       ;
         7045   00124  ;TPA$TYPE
                          U.171:   .WORD     28741                                   ;
     00000000*  00126  ;TPA$ADDR
```

```
                      U.172:   .LONG    <<FPROT_VALUE-U.172>-4>              ;
 00000004   0012A  ;TPA$MASK
                      U.173:   .LONG    4                                    ;
     0000*  0012E  ;TPA$TARGET
                      U.174:   .WORD    <<SYPRO-U.174>-2>                    ;
      7050  00130  ;TPA$TYPE
                      U.175:   .WORD    28752                                ;
 00000000*  00132  ;TPA$ADDR
                      U.176:   .LONG    <<FPROT_VALUE-U.176>-4>              ;
 00000004   00136  ;TPA$MASK
                      U.177:   .LONG    4                                    ;
     0000*  0013A  ;TPA$TARGET
                      U.178:   .WORD    <<SYPRO-U.178>-2>                    ;
      7044  0013C  ;TPA$TYPE
                      U.179:   .WORD    28740                                ;
 00000000*  0013E  ;TPA$ADDR
                      U.180:   .LONG    <<FPROT_VALUE-U.180>-4>              ;
 00000008   00142  ;TPA$MASK
                      U.181:   .LONG    8                                    ;
     0000*  00146  ;TPA$TARGET
                      U.182:   .WORD    <<SYPRO-U.182>-2>                    ;
      704C  00148  ;TPA$TYPE
                      U.183:   .WORD    28748                                ;
 00000000*  0014A  ;TPA$ADDR
                      U.184:   .LONG    <<FPROT_VALUE-U.184>-4>              ;
 00000008   0014E  ;TPA$MASK
                      U.185:   .LONG    8                                    ;
     0000*  00152  ;TPA$TARGET
                      U.186:   .WORD    <<SYPRO-U.186>-2>                    ;
      15F6  00154  ;TPA$TYPE
                      U.187:   .WORD    5622                                 ;
     0000*  00156  ;TPA$TARGET
                      U.188:   .WORD    <<U.161-U.188>-2>                    ;
            00158  ;OWPR
                      U.139:   .BLKB    0
      003A  00158  ;TPA$TYPE
                      U.189:   .WORD    58                                   ;
      003D  0015A  ;TPA$TYPE
                      U.190:   .WORD    61                                   ;
      15F6  0015C  ;TPA$TYPE
                      U.191:   .WORD    5622                                 ;
     0000*  0015E  ;TPA$TARGET
                      U.192:   .WORD    <<U.161-U.192>-2>                    ;
            00160  OWPRO:  .BLKB    0
      7052  00160  ;TPA$TYPE
                      U.193:   .WORD    28754                                ;
 00000000*  00162  ;TPA$ADDR
                      U.194:   .LONG    <<FPROT_VALUE-U.194>-4>              ;
 00000010   00166  ;TPA$MASK
                      U.195:   .LONG    16                                   ;
     0000*  0016A  ;TPA$TARGET
                      U.196:   .WORD    <<OWPRO-U.196>-2>                    ;
      7057  0016C  ;TPA$TYPE
                      U.197:   .WORD    28759                                ;
 00000000*  0016E  ;TPA$ADDR
                      U.198:   .LONG    <<FPROT_VALUE-U.198>-4>              ;
 00000020   00172  ;TPA$MASK
```

```
                       U.199:   .LONG    32                             ;
          0000*  00176 ;TPA$TARGET
                       U.200:   .WORD    <<OWPRO-U.200>-2>              ;
          7045   00178 ;TPA$TYPE
                       U.201:   .WORD    28741                          ;
      00000000*  0017A ;TPA$ADDR
                       U.202:   .LONG    <<FPROT_VALUE-U.202>-4>        ;
      00000040   0017E ;TPA$MASK
                       U.203:   .LONG    64                             ;
          0000*  00182 ;TPA$TARGET
                       U.204:   .WORD    <<OWPRO-U.204>-2>              ;
          7050   00184 ;TPA$TYPE
                       U.205:   .WORD    28752                          ;
      00000000*  00186 ;TPA$ADDR
                       U.206:   .LONG    <<FPROT_VALUE-U.206>-4>        ;
      00000040   0018A ;TPA$MASK
                       U.207:   .LONG    64                             ;
          0000*  0018E ;TPA$TARGET
                       U.208:   .WORD    <<OWPRO-U.208>-2>              ;
          7044   00190 ;TPA$TYPE
                       U.209:   .WORD    28740                          ;
      00000000*  00192 ;TPA$ADDR
                       U.210:   .LONG    <<FPROT_VALUE-U.210>-4>        ;
      00000080   00196 ;TPA$MASK
                       U.211:   .LONG    128                            ;
          0000*  0019A ;TPA$TARGET
                       U.212:   .WORD    <<OWPRO-U.212>-2>              ;
          704C   0019C ;TPA$TYPE
                       U.213:   .WORD    28748                          ;
      00000000*  0019E ;TPA$ADDR
                       U.214:   .LONG    <<FPROT_VALUE-U.214>-4>        ;
      00000080   001A2 ;TPA$MASK
                       U.215:   .LONG    128                            ;
          0000*  001A6 ;TPA$TARGET
                       U.216:   .WORD    <<OWPRO-U.216>-2>              ;
          15F6   001A8 ;TPA$TYPE
                       U.217:   .WORD    5622                           ;
          0000*  001AA ;TPA$TARGET
                       U.218:   .WORD    <<U.161-U.218>-2>              ;
                 001AC ;GRPR
                       U.147:   .BLKB    0
          003A   001AC ;TPA$TYPE
                       U.219:   .WORD    58                             ;
          003D   001AE ;TPA$TYPE
                       U.220:   .WORD    61                             ;
          15F6   001B0 ;TPA$TYPE
                       U.221:   .WORD    5622                           ;
          0000*  001B2 ;TPA$TARGET
                       U.222:   .WORD    <<U.161-U.222>-2>              ;
                 001B4 GRPRO:   .BLKB    0
          7052   001B4 ;TPA$TYPE
                       U.223:   .WORD    28754                          ;
      00000000*  001B6 ;TPA$ADDR
                       U.224:   .LONG    <<FPROT_VALUE-U.224>-4>        ;
      00000100   001BA ;TPA$MASK
                       U.225:   .LONG    256                            ;
          0000*  001BE ;TPA$TARGET
```

```
                      U.226:   .WORD    <<GRPRO-U.226>-2>                 ;
     7057   001C0   ;TPA$TYPE
                      U.227:   .WORD    28759                             ;
00000000*   001C2   ;TPA$ADDR
                      U.228:   .LONG    <<FPROT_VALUE-U.228>-4>           ;
00000200    001C6   ;TPA$MASK
                      U.229:   .LONG    512                               ;
     0000*  001CA   ;TPA$TARGET
                      U.230:   .WORD    <<GRPRO-U.230>-2>                 ;
     7045   001CC   ;TPA$TYPE
                      U.231:   .WORD    28741                             ;
00000000*   001CE   ;TPA$ADDR
                      U.232:   .LONG    <<FPROT_VALUE-U.232>-4>           ;
00000400    001D2   ;TPA$MASK
                      U.233:   .LONG    1024                              ;
     0000*  001D6   ;TPA$TARGET
                      U.234:   .WORD    <<GRPRO-U.234>-2>                 ;
     7050   001D8   ;TPA$TYPE
                      U.235:   .WORD    28752                             ;
00000000*   001DA   ;TPA$ADDR
                      U.236:   .LONG    <<FPROT_VALUE-U.236>-4>           ;
00000400    001DE   ;TPA$MASK
                      U.237:   .LONG    1024                              ;
     0000*  001E2   ;TPA$TARGET
                      U.238:   .WORD    <<GRPRO-U.238>-2>                 ;
     7044   001E4   ;TPA$TYPE
                      U.239:   .WORD    28740                             ;
00000000*   001E6   ;TPA$ADDR
                      U.240:   .LONG    <<FPROT_VALUE-U.240>-4>           ;
00000800    001EA   ;TPA$MASK
                      U.241:   .LONG    2048                              ;
     0000*  001EE   ;TPA$TARGET
                      U.242:   .WORD    <<GRPRO-U.242>-2>                 ;
     704C   001F0   ;TPA$TYPE
                      U.243:   .WORD    28748                             ;
00000000*   001F2   ;TPA$ADDR
                      U.244:   .LONG    <<FPROT_VALUE-U.244>-4>           ;
00000800    001F6   ;TPA$MASK
                      U.245:   .LONG    2048                              ;
     0000*  001FA   ;TPA$TARGET
                      U.246:   .WORD    <<GRPRO-U.246>-2>                 ;
     15F6   001FC   ;TPA$TYPE
                      U.247:   .WORD    5622                              ;
     0000*  001FE   ;TPA$TARGET
                      U.248:   .WORD    <<U.161-U.248>-2>                 ;
            00200   ;WOPR
                      U.155:   .BLKB    0
     003A   00200   ;TPA$TYPE
                      U.249:   .WORD    58                                ;
     003D   00202   ;TPA$TYPE
                      U.250:   .WORD    61                                ;
     15F6   00204   ;TPA$TYPE
                      U.251:   .WORD    5622                              ;
     0000*  00206   ;TPA$TARGET
                      U.252:   .WORD    <<U.161-U.252>-2>                 ;
            00208   WOPRO:   .BLKB    0
     7052   00208   ;TPA$TYPE
```

```
                          U.253:   .WORD    28754                         ;
   00000000* 0020A ;TPA$ADDR
                          U.254:   .LONG    <<FPROT_VALUE-U.254>-4>       ;
   00001000  0020E ;TPA$MASK
                          U.255:   .LONG    4096                          ;
       0000* 00212 ;TPA$TARGET
                          U.256:   .WORD    <<WOPRO-U.256>-2>             ;
       7057  00214 ;TPA$TYPE
                          U.257:   .WORD    28759                         ;
   00000000* 00216 ;TPA$ADDR
                          U.258:   .LONG    <<FPROT_VALUE-U.258>-4>       ;
   00002000  0021A ;TPA$MASK
                          U.259:   .LONG    8192                          ;
       0000* 0021E ;TPA$TARGET
                          U.260:   .WORD    <<WOPRO-U.260>-2>             ;
       7045  00220 ;TPA$TYPE
                          U.261:   .WORD    28741                         ;
   00000000* 00222 ;TPA$ADDR
                          U.262:   .LONG    <<FPROT_VALUE-U.262>-4>       ;
   00004000  00226 ;TPA$MASK
                          U.263:   .LONG    16384                         ;
       0000* 0022A ;TPA$TARGET
                          U.264:   .WORD    <<WOPRO-U.264>-2>             ;
       7050  0022C ;TPA$TYPE
                          U.265:   .WORD    28752                         ;
   00000000* 0022E ;TPA$ADDR
                          U.266:   .LONG    <<FPROT_VALUE-U.266>-4>       ;
   00004000  00232 ;TPA$MASK
                          U.267:   .LONG    16384                         ;
       0000* 00236 ;TPA$TARGET
                          U.268:   .WORD    <<WOPRO-U.268>-2>             ;
       7044  00238 ;TPA$TYPE
                          U.269:   .WORD    28740                         ;
   00000000* 0023A ;TPA$ADDR
                          U.270:   .LONG    <<FPROT_VALUE-U.270>-4>       ;
   00008000  0023E ;TPA$MASK
                          U.271:   .LONG    32768                         ;
       0000* 00242 ;TPA$TARGET
                          U.272:   .WORD    <<WOPRO-U.272>-2>             ;
       704C  00244 ;TPA$TYPE
                          U.273:   .WORD    28748                         ;
   00000000* 00246 ;TPA$ADDR
                          U.274:   .LONG    <<FPROT_VALUE-U.274>-4>       ;
   00008000  0024A ;TPA$MASK
                          U.275:   .LONG    32768                         ;
       0000* 0024E ;TPA$TARGET
                          U.276:   .WORD    <<WOPRO-U.276>-2>             ;
       15F6  00250 ;TPA$TYPE
                          U.277:   .WORD    5622                          ;
       0000* 00252 ;TPA$TARGET
                          U.278:   .WORD    <<U.161-U.278>-2>             ;
             00254 ;ENDPRO
                          U.161:   .BLKB    0
       102C  00254 ;TPA$TYPE
                          U.279:   .WORD    4140                          ;
       0000* 00256 ;TPA$TARGET
                          U.280:   .WORD    <<NEXTPRO-U.280>-2>           ;
```

```
            15F7  00258 ;TPA$TYPE
                        U.281:  .WORD   5623                                    ;
            FFFF  0025A ;TPA$TARGET
                        U.282:  .WORD   -1                                      ;
                  0025C RET_STATE::
                                .BLKB   0
                  0025C RETSTART:
                                .BLKB   0
            4DF8  0025C ;TPA$TYPE
                        U.284:  .WORD   19960                                   ;
           0000*  0025E ;TPA$SUBEXP
                        U.286:  .WORD   <<U.285-U.286>-2>                       ;
       00000000*  00260 ;TPA$ADDR
                        U.287:  .LONG   <<RETMIN_VALUE-U.287>-4>                ;
            002C  00264 ;TPA$TYPE
                        U.288:  .WORD   44                                      ;
            15F7  00266 ;TPA$TYPE
                        U.289:  .WORD   5623                                    ;
            FFFF  00268 ;TPA$TARGET
                        U.290:  .WORD   -1                                      ;
            4DF8  0026A ;TPA$TYPE
                        U.291:  .WORD   19960                                   ;
           0000*  0026C ;TPA$SUBEXP
                        U.292:  .WORD   <<U.285-U.292>-2>                       ;
       00000000*  0026E ;TPA$ADDR
                        U.293:  .LONG   <<RETMAX_VALUE-U.293>-4>                ;
            15F7  00272 ;TPA$TYPE
                        U.294:  .WORD   5623                                    ;
            FFFF  00274 ;TPA$TARGET
                        U.295:  .WORD   -1                                      ;
                  00276 ;GET_DELTA
                        U.285:  .BLKB   0
            91ED  00276 ;TPA$TYPE
                        U.296:  .WORD   -28179                                  ;
       00000000V  00278 ;TPA$ACTION
                        U.297:  .LONG   <<TEST_CHAR-U.297>-4>                   ;
           0000*  0027C ;TPA$TARGET
                        U.298:  .WORD   <<U.285-U.298>-2>                       ;
            15F6  0027E ;TPA$TYPE
                        U.299:  .WORD   5622                                    ;
            FFFF  00280 ;TPA$TARGET
                        U.300:  .WORD   -1                                      ;

                                .PSECT  _LIB$KEY0$,NOWRT,  SHR,  PIC,1

                  00000 DC_KEYS::
                                .BLKB   0
                  00000 ;TPA$KEY0
                        U.1:    .BLKB   0
           0000*  00000 ;TPA$KEY
                        U.10:   .WORD   <U.9-U.1>                               ;
           0000*  00002 ;TPA$KEY
                        U.16:   .WORD   <U.15-U.1>                              ;
           0000*  00004 ;TPA$KEY
                        U.22:   .WORD   <U.21-U.1>                              ;
           0000*  00006 ;TPA$KEY
                        U.28:   .WORD   <U.27-U.1>                              ;
```

```
                          00008 OWNER_KEYS::
                                         .BLKB    0
                          00008 ;TPA$KEY0
                                U.38:    .BLKB    0
                    0000* 00008 ;TPA$KEY
                                U.40:    .WORD    <U.39-U.38>                               ;
                          0000A          .BLKB    2
                          0000C JOURNAL_KEYS::
                                         .BLKB    0
                          0000C ;TPA$KEY0
                                U.58:    .BLKB    0
                    0000* 0000C ;TPA$KEY
                                U.60:    .WORD    <U.59-U.58>                               ;
                    0000* 0000E ;TPA$KEY
                                U.66:    .WORD    <U.65-U.58>                               ;
                    0000* 00010 ;TPA$KEY
                                U.72:    .WORD    <U.71-U.58>                               ;
                    0000* 00012 ;TPA$KEY
                                U.78:    .WORD    <U.77-U.58>                               ;
                    0000* 00014 ;TPA$KEY
                                U.84:    .WORD    <U.83-U.58>                               ;
                    0000* 00016 ;TPA$KEY
                                U.90:    .WORD    <U.89-U.58>                               ;
                    0000* 00018 ;TPA$KEY
                                U.96:    .WORD    <U.95-U.58>                               ;
                    0000* 0001A ;TPA$KEY
                                U.102:   .WORD    <U.101-U.58>                              ;
                    0000* 0001C ;TPA$KEY
                                U.108:   .WORD    <U.107-U.58>                              ;
                    0000* 0001E ;TPA$KEY
                                U.114:   .WORD    <U.113-U.58>                              ;
                          00020 PRO_KEYS::
                                         .BLKB    0
                          00020 ;TPA$KEY0
                                U.124:   .BLKB    0
                    0000* 00020 ;TPA$KEY
                                U.126:   .WORD    <U.125-U.124>                             ;
                    0000* 00022 ;TPA$KEY
                                U.134:   .WORD    <U.133-U.124>                             ;
                    0000* 00024 ;TPA$KEY
                                U.142:   .WORD    <U.141-U.124>                             ;
                    0000* 00026 ;TPA$KEY
                                U.150:   .WORD    <U.149-U.124>                             ;
                          00028 RET_KEYS::
                                         .BLKB    0
                          00028 ;TPA$KEY0
                                U.283:   .BLKB    0

                                         .PSECT   $OWN$,NOEXE,2

00000003  00000008  00000 TPARSE_BLOCK:
                                         .LONG    8, 3                                      ;
                          00008          .BLKB    28
                          00024 PRIVS:   .BLKB    8

                                QUAL_ACCESS==       1
                                QUAL_BACKUP==       2
```

```
QUAL_NOBACKUP==         3
QUAL_CONFIRM==          4
QUAL_DATA==             5
QUAL_ENTER==            6
QUAL_EOF==              7
QUAL_ERASE==            8
QUAL_NOERASE==          9
QUAL_EXPI==             10
QUAL_EXTE==             11
QUAL_FPROT==            12
QUAL_GBUF==             13
QUAL_JOURNAL==          14
QUAL_LABEL==            15
QUAL_LOG==              16
QUAL_NODI==             17
QUAL_OWNER==            18
QUAL_PARENT==           19
QUAL_REMOVE==           20
QUAL_RETENT==           21
QUAL_RPROT==            22
QUAL_TRUNC==            23
QUAL_USERNAME==         24
QUAL_VPROT==            25
QUAL_VRSN==             26
QUAL_WINDOWS==          27
DATA_READ==             1
DATA_NOREAD==           2
DATA_WRITE==            3
DATA_NOWRITE==          4
JRNL_AI==               1
JRNL_NOAI==             2
JRNL_AT==               3
JRNL_NOAT==             4
JRNL_BI==               5
JRNL_NOBI==             6
JRNL_RU==               7
JRNL_NORU==             8
JRNL_RUM==              9
JRNL_NORUM==            10
        .EXTRN  CALCULATE_MAX, SYS$FAO
        .EXTRN  LIB$TPARSE, LIB$CVT_TIME
        .EXTRN  LIB$CVT_DTIME, LIB$CVT_DTB
        .EXTRN  RENAME_BUF, FILE_NAME
        .EXTRN  FILE_RCF, SET$L_STATUS
        .EXTRN  SET$A_CLIWORK, SETFILE$FLAGS
        .EXTRN  SETFILE$DFLAGS, SETFILE$JFLAGS
        .EXTRN  ACC_VALUE, EXP_VALUE
        .EXTRN  EXTE_VALUE, FPROT_VALUE
        .EXTRN  GBUF_VALUE, LABEL_VALUE
        .EXTRN  UIC_VALUE, GROUP
        .EXTRN  MEMBER, USER_VALUE
        .EXTRN  RETMIN_VALUE, RETMAX_VALUE
        .EXTRN  VPROT_VALUE, VRSN_VALUE
        .EXTRN  WINDOW_VALUE, SET$_FACILITY
        .EXTRN  SET$_OPERREQ, SET$_WRITEERR
        .EXTRN  SYS$SETPRV
```

```
                                                                .PSECT  $CODE$,NOWRT,2

                                       003C 00000              .ENTRY  ACC_ACT, Save R2,R3,R4,R5                     ; 0396
                   55 00000000G  00     9E 00002               MOVAB   ACC_VALUE, R5                                  ;
                   54 00000000G  00     9E 00009               MOVAB   LIB$STOP, R4                                   ;
                   5E            08     C2 00010               SUBL2   #8, SP                                         ;
                      00000000'  EF     9F 00013               PUSHAB  PRIVS                                          ; 0421
                                 01     DD 00019               PUSHL   #1                                             ;
                   7E            01     7D 0001B               MOVQ    #1, -(SP)                                      ;
         00000000G 00            04     FB 0001E               CALLS   #4, SYS$SETPRV                                 ;
                   53            50     D0 00025               MOVL    R0, STATUS                                     ;
                   05            53     E8 00028               BLBS    STATUS, 1$                                     ;
                                 53     DD 0002B               PUSHL   STATUS                                         ; 0422
                   64            01     FB 0002D               CALLS   #1, LIB$STOP                                   ;
      09 00000000' EF            02     E0 00030 1$:           BBS     #2, PRIVS+2, 2$                                ; 0424
                      00000000G  8F     DD 00038               PUSHL   #SET$_OPERREQ                                  ;
                   64            01     FB 0003E               CALLS   #1, LIB$STOP                                   ;
                   65            03     D0 00041 2$:           MOVL    #3, ACC_VALUE                                  ; 0430
                   52        04  AC     D0 00044               MOVL    OPTION_BLOCK, R2                               ; 0435
                             04  A2     B5 00048               TSTW    4(R2)                                          ;
                                 3C     13 0004B               BEQL    6$                                             ;
                                 55     DD 0004D               PUSHL   R5                                             ; 0441
                             08  A2     DD 0004F               PUSHL   8(R2)                                          ; 0442
                   7E        04  A2     3C 00052               MOVZWL  4(R2), -(SP)                                   ; 0441
         00000000G 00            03     FB 00056               CALLS   #3, LIB$CVT_DTB                                ;
                   53            50     D0 0005D               MOVL    R0, STATUS                                     ;
                   04            53     E8 00060               BLBS    STATUS, 3$                                     ;
                                 53     DD 00063               PUSHL   STATUS                                         ; 0447
                                 14     11 00065               BRB     5$                                             ; 0446
                   50            65     D0 00067 3$:           MOVL    ACC_VALUE, R0                                  ; 0450
                                 09     19 0006A               BLSS    4$                                             ;
         000000FF  8F            50     D1 0006C               CMPL    R0, #255                                       ; 0452
                                 14     15 00073               BLEQ    6$                                             ;
                      00000000*  8F     DD 00075 4$:           PUSHL   #<<<SET$_FACILITY@16>+4584>+2>                 ; 0456
                             04  A2     9F 0007B 5$:           PUSHAB  4(R2)                                          ; 0455
                                 01     DD 0007E               PUSHL   #1                                             ;
                      00000000*  8F     DD 00080               PUSHL   #<<<SET$_FACILITY@16>+4344>+2>                 ;
                   64            04     FB 00086               CALLS   #4, LIB$STOP                                   ;
                   50            01     D0 00089 6$:           MOVL    #1, R0                                         ; 0458
                                        04 0008C               RET                                                    ; 0459

; Routine Size:  141 bytes,    Routine Base:  $CODE$ + 0000
;  472          0460   1 GLOBAL ROUTINE back_act =
;  473          0461   1 !++
;  474          0462   1 !
;  475          0463   1 !  This is the action routine for the /BACKUP qualifier.  It simply
;  476          0464   1 !  sets the correct bit in the flags word.
;  477          0465   1 !
;  478          0466   1 !--
;  479          0467   2 BEGIN
;  480          0468   2 setfile$flags[qual_backup] = true;
;  481          0469   2 RETURN true;
;  482          0470   1 END;


                                      0000 00000         .ENTRY  BACK_ACT, Save nothing                               ; 0460
                   00000000G  00           04  88 00002         BISB2   #4, SETFILE$FLAGS                                    ; 0468
                              50           01  D0 00009         MOVL    #1, R0                                               ; 0469
                                               04 0000C         RET                                                          ; 0470

; Routine Size:  13 bytes,    Routine Base:  $CODE$ + 008D
;  484          0471  1 GLOBAL ROUTINE noback_act =
;  485          0472  1 !++
;  486          0473  1 !
;  487          0474  1 !  This is the action routine for the /NOBACKUP qualifier.  It simply
;  488          0475  1 !  sets the correct bit in the flags word.
;  489          0476  1 !
;  490          0477  1 !--
;  491          0478  2 BEGIN
;  492          0479  2 setfile$flags[qual_nobackup] = true;
;  493          0480  2 RETURN true;
;  494          0481  1 END;



                                          0000 00000        .ENTRY  NOBACK_ACT, Save nothing                           ; 0471
                    00000000G  00      08   88 00002        BISB2   #8, SETFILE$FLAGS                                  ; 0479
                               50      01   D0 00009        MOVL    #1, R0                                             ; 0480
                                            04 0000C        RET                                                        ; 0481

; Routine Size:  13 bytes,    Routine Base:  $CODE$ + 009A
;  496        0482  1 GLOBAL ROUTINE data_act (option_block,callback) =
;  497        0483  1 !++
;  498        0484  1 !
;  499        0485  1 ! This is the action routine for the /DATA_CHECK qualifier.  It checks to see
;  500        0486  1 ! if any options were set.  If not, it defaults to DATA_CHECK=WRITE.
;  501        0487  1 !
;  502        0488  1 !--
;  503        0489  2 BEGIN
;  504        0490  2
;  505        0491  2 LOCAL
;  506        0492  2     status;
;  507        0493  2
;  508        0494  2 MAP
;  509        0495  2     option_block : REF BBLOCK;
;  510        0496  2
;  511        0497  2 IF .option_block[cli$w_qdvalsiz] EQL 0
;  512        0498  2 THEN setfile$dflags[data_write] = true
;  513        0499  2
;  514        0500  2 ELSE
;  515        0501  3     BEGIN
;  516        0502  3     tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
;  517        0503  3     tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
;  518        0504  4     IF NOT (status = lib$tparse(tparse_block,
;  519        0505  4             dc_state,dc_keys))
;  520        0506  3     THEN
;  521        0507  4         BEGIN
;  522        0508  4         SIGNAL( set$_facility^16 + shr$_syntax + sts$k_error,
;  523        0509  4                 1,
;  524        0510  4                 option_block[cli$q_qdvaldesc],
;  525        0511  4                 .status);
;  526        0512  4         RETURN .status;
;  527        0513  3         END;
;  528        0514  2     END;
;  529        0515  2 RETURN true;
;  530        0516  1 END;



                                    001C 00000         .ENTRY  DATA_ACT, Save R2,R3,R4          ; 0482
                  54 00000000'   EF   9E 00002         MOVAB   TPARSE_BLOCK+8, R4               ;
                  52        04   AC   D0 00009         MOVL    OPTION_BLOCK, R2                 ; 0497
                            04   A2   B5 0000D         TSTW    4(R2)                            ;
                                 09   12 00010         BNEQ    1$                               ;
        00000000G 00             08   88 00012         BISB2   #8, SETFILE$DFLAGS               ; 0498
                                 3D   11 00019         BRB     2$                               ;
                  64        04   A2   3C 0001B 1$:     MOVZWL  4(R2), TPARSE_BLOCK+8            ; 0502
              04  A4        08   A2   D0 0001F         MOVL    8(R2), TPARSE_BLOCK+12           ; 0503
                     00000000'   EF   9F 00024         PUSHAB  DC_KEYS                          ; 0504
                     00000000'   EF   9F 0002A         PUSHAB  DC_STATE                         ;
                            F8   A4   9F 00030         PUSHAB  TPARSE_BLOCK                     ;
        00000000G 00             03   FB 00033         CALLS   #3, LIB$TPARSE                   ;
                  53             50   D0 0003A         MOVL    R0, STATUS                       ;
                  18             53   E8 0003D         BLBS    STATUS, 2$                       ;
                                 53   DD 00040         PUSHL   STATUS                           ; 0511
                            04   A2   9F 00042         PUSHAB  4(R2)                            ; 0510
```

```
                                                     01   DD 00045            PUSHL    #1                                   ;
                                         00000000*   8F   DD 00047            PUSHL    #<<<SET$_FACILITY@16>+4344>+2>       ;
                        00000000G  00                04   FB 0004D            CALLS    #4, LIB$SIGNAL                       ;
                                   50                53   D0 00054            MOVL     STATUS, R0                           ; 0512
                                                          04 00057            RET                                           ;
                                   50                01   D0 00058 2$:        MOVL     #1, R0                               ; 0515
                                                          04 0005B            RET                                           ; 0516

; Routine Size:  92 bytes,    Routine Base:  $CODE$ + 00A7
;    532          0517    1 GLOBAL ROUTINE enter_act (option_block,callback) =
;    533          0518    1 !++
;    534          0519    1 !
;    535          0520    1 ! This is the action routine for the /ENTER qualifier.
;    536          0521    1 ! The new synonym is collected.
;    537          0522    1 !
;    538          0523    1 !--
;    539          0524    2 BEGIN
;    540          0525    2
;    541          0526    2 MAP
;    542          0527    2     option_block : REF BBLOCK;
;    543          0528    2
;    544          0529    2
;    545          0530    2 !
;    546          0531    2 ! Get the expanded file string
;    547          0532    2 !
;    548          0533    2
;    549          0534    2 CH$MOVE(.option_block[cli$w_qdvalsiz],                    ! Move file string
;    550          0535    2         .option_block[cli$a_qdvaladr],
;    551          0536    2         rename_buf);
;    552          0537    2
;    553          0538    2 file_name[0] = .option_block[cli$w_qdvalsiz];             ! Store length
;    554          0539    2 file_name[1] = .option_block[cli$a_qdvaladr];             ! and address
;    555          0540    2
;    556          0541    2 RETURN true;
;    557          0542    1 END;



                                                007C 00000        .ENTRY  ENTER_ACT, Save R2,R3,R4,R5,R6                      ; 0517
                                56        04  AC  D0 00002        MOVL    OPTION_BLOCK, R6                                    ; 0534
          00000000G  00       08  B6        04  A6  28 00006        MOVC3   4(R6), @8(R6), RENAME_BUF                           ;
                     00000000G  00          04  A6  3C 00010        MOVZWL  4(R6), FILE_NAME                                    ; 0538
                     00000000G  00          08  A6  D0 00018        MOVL    8(R6), FILE_NAME+4                                  ; 0539
                                50          01  D0 00020        MOVL    #1, R0                                              ; 0541
                                                 04 00023        RET                                                         ; 0542

; Routine Size:  36 bytes,    Routine Base:  $CODE$ + 0103
;  559          0543  1 GLOBAL ROUTINE erase_act =
;  560          0544  1 !++
;  561          0545  1 !
;  562          0546  1 ! This is the action routine for the /ERASE qualifier.  It simply
;  563          0547  1 ! sets the correct bit in the flags word.
;  564          0548  1 !
;  565          0549  1 !--
;  566          0550  2 BEGIN
;  567          0551  2 setfile$flags[qual_erase] = true;
;  568          0552  2 RETURN true;
;  569          0553  1 END;



                                         0000 00000         .ENTRY  ERASE_ACT, Save nothing                           ; 0543
                     00000000G  00          01   88 00002         BISB2   #1, SETFILE$FLAGS+1                               ; 0551
                                50          01   D0 00009         MOVL    #1, R0                                            ; 0552
                                                 04 0000C         RET                                                       ; 0553

; Routine Size:  13 bytes,    Routine Base:  $CODE$ + 0127
;  571          0554  1 GLOBAL ROUTINE noerase_act =
;  572          0555  1 !++
;  573          0556  1 !
;  574          0557  1 ! This is the action routine for the /NOERASE qualifier.  It simply
;  575          0558  1 ! sets the correct bit in the flags word.
;  576          0559  1 !
;  577          0560  1 !--
;  578          0561  2 BEGIN
;  579          0562  2 setfile$flags[qual_noerase] = true;
;  580          0563  2 RETURN true;
;  581          0564  1 END;



                                     0000 00000        .ENTRY  NOERASE_ACT, Save nothing                          ; 0554
             00000000G  00         02  88 00002        BISB2   #2, SETFILE$FLAGS+1                                ; 0562
                        50         01  D0 00009        MOVL    #1, R0                                             ; 0563
                                       04 0000C        RET                                                        ; 0564

; Routine Size:  13 bytes,    Routine Base:  $CODE$ + 0134
```

```
:   583          0565  1 GLOBAL ROUTINE exp_act (option_block,callback) =
:   584          0566  1 !++
:   585          0567  1 !
:   586          0568  1 ! This is the action routine for the /EXPIRATION qualifier.
:   587          0569  1 ! If no value is given, exit with a syntax error.
:   588          0570  1 !
:   589          0571  1 !--
:   590          0572  2 BEGIN
:   591          0573  2
:   592          0574  2 LOCAL
:   593          0575  2     status,
:   594          0576  2     desc : BBLOCK[dsc$c_s_bln];
:   595          0577  2
:   596          0578  2 MAP
:   597          0579  2     option_block : REF BBLOCK;          ! Define the CLI options block
:   598          0580  2
:   599          0581  2 !
:   600          0582  2 ! Get the date, signalling a syntax error if no good.
:   601          0583  2 !
:   602          0584  2
:   603          0585  2 desc[dsc$w_length] = .option_block[cli$w_qdvalsiz];
:   604          0586  2 desc[dsc$a_pointer] = .option_block[cli$a_qdvaladr];
:   605          0587  3 IF NOT (status = LIB$CVT_TIME(desc,exp_value))
:   606          0588  2 THEN
:   607          0589  3     BEGIN
:   608          0590  3     SIGNAL_STOP(  set$_facility^16 + shr$_syntax + sts$k_error,
:   609          0591  3                   1,
:   610          0592  3                   option_block[cli$q_qdvaldesc],
:   611          0593  3                   .status);
:   612          0594  3     RETURN .status;
:   613          0595  3     END
:   614          0596  2 ELSE RETURN true;
:   615          0597  1 END;



                                    000C 00000          .ENTRY  EXP_ACT, Save R2,R3                              : 0565
                 5E             08   C2 00002           SUBL2   #8, SP
                 52        04   AC   D0 00005           MOVL    OPTION_BLOCK, R2                                 : 0585
                 6E        04   A2   B0 00009           MOVW    4(R2), DESC
          04     AE        08   A2   D0 0000D           MOVL    8(R2), DESC+4                                    : 0586
                     00000000G  00   9F 00012           PUSHAB  EXP_VALUE                                        : 0587
                           04   AE   9F 00018           PUSHAB  DESC
      00000000G  00             02   FB 0001B           CALLS   #2, LIB$CVT_TIME                                 :
                 53             50   D0 00022           MOVL    R0, STATUS                                       :
                 18             53   E8 00025           BLBS    STATUS, 1$                                       :
                                53   DD 00028           PUSHL   STATUS                                           : 0593
                           04   A2   9F 0002A           PUSHAB  4(R2)                                            : 0592
                                01   DD 0002D           PUSHL   #1                                               :
                     00000000*  8F   DD 0002F           PUSHL   #<<<SET$_FACILITY@16>+4344>+2>                   :
      00000000G  00             04   FB 00035           CALLS   #4, LIB$STOP                                     :
                 50             53   D0 0003C           MOVL    STATUS, R0                                       : 0596
                                04      0003F           RET                                                      :
                 50             01   D0 00040  1$:      MOVL    #1, R0                                           :
                                04      00043           RET                                                      : 0597
```

```
; Routine Size:  68 bytes,    Routine Base:  $CODE$ + 0141
;  617          0598  1 GLOBAL ROUTINE noexp_act =
;  618          0599  1 !++
;  619          0600  1 !
;  620          0601  1 ! This is the action routine for the /NOEXPIRATION_DATE qualifier.
;  621          0602  1 ! It supplies an expiration date of zero.
;  622          0603  1 !
;  623          0604  1 !--
;  624          0605  2 BEGIN
;  625          0606  2
;  626          0607  2 CH$FILL(0,8,exp_value);                 ! Zero out the expiration date
;  627          0608  2 setfile$flags[qual_expi] = true;        ! Set the expiration flag on
;  628          0609  2
;  629          0610  2 RETURN true;
;  630          0611  1 END;



                                           003C 00000          .ENTRY  NOEXP_ACT, Save R2,R3,R4,R5                   ; 0598
      08          00         6E         00   2C 00002          MOVC5   #0, (SP), #0, #8, EXP_VALUE                   ; 0607
                                  00000000G  00      00007                                                            ;
                  00000000G  00              04   88 0000C          BISB2   #4, SETFILE$FLAGS+1                           ; 0608
                             50              01   D0 00013          MOVL    #1, R0                                        ; 0610
                                                  04 00016          RET                                                   ; 0611

; Routine Size:  23 bytes,    Routine Base:  $CODE$ + 0185
;  632          0612  1 GLOBAL ROUTINE ext_act (option_block,callback) =
;  633          0613  1 !++
;  634          0614  1 !
;  635          0615  1 ! This is the action routine for the /EXTENSION qualifier.  If no value is
;  636          0616  1 ! specified, the default value of 0 is used.
;  637          0617  1 !
;  638          0618  1 !--
;  639          0619  2 BEGIN
;  640          0620  2
;  641          0621  2 LOCAL
;  642          0622  2     status,
;  643          0623  2     desc : BBLOCK[dsc$c_s_bln];
;  644          0624  2
;  645          0625  2 MAP
;  646          0626  2     option_block : REF BBLOCK;           ! Define the CLI options block
;  647          0627  2
;  648          0628  2 exte_value = 0;                          ! Set up default
;  649          0629  2
;  650          0630  2 !
;  651          0631  2 ! See if a value was specified.  If not, then use the default.
;  652          0632  2 !
;  653          0633  2 IF .option_block[cli$w_qdvalsiz] EQL 0
;  654          0634  2 THEN RETURN true;
;  655          0635  2
;  656          0636  2 !
;  657          0637  2 ! If the value is there, convert it and return
;  658          0638  2 !
;  659          0639  3 IF NOT (status = LIB$CVT_DTB(.option_block[cli$w_qdvalsiz],
;  660          0640  3                             .option_block[cli$a_qdvaladr],
;  661          0641  3                             exte_value))
;  662          0642  2 THEN
;  663          0643  3     BEGIN
;  664          0644  3     SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  665          0645  3                 1,
;  666          0646  3                 option_block[cli$q_qdvaldesc],
;  667          0647  3                 .status);
;  668          0648  3     END
;  669          0649  2 ELSE
;  670          0650  3     BEGIN
;  671          0651  4     IF NOT (.exte_value GEQ 0
;  672          0652  4                 AND
;  673          0653  4             .exte_value LEQ 65535)
;  674          0654  3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  675          0655  3                      1,
;  676          0656  3                      option_block[cli$q_qdvaldesc],
;  677          0657  3                      set$_facility^16 + shr$_valerr + sts$k_error);
;  678          0658  2     END;
;  679          0659  2
;  680          0660  2 RETURN true;
;  681          0661  1 END;



                                         000C 00000          .ENTRY  EXT_ACT, Save R2,R3                          ; 0612
                           53 00000000G   00  9E 00002          MOVAB   EXTE_VALUE, R3                               ;
```

```
                                                         K 4
SETACT                                                   16-Sep-1984 01:06:01    VAX-11 Bliss-32 V4.0-742          Page  41
V04-000                                                  14-Sep-1984 12:08:59    [CLIUTL.SRC]SETACT.B32;1               (21)

                    5E             08  C2 00009          SUBL2   #8, SP                                       ;
                                   63  D4 0000C          CLRL    EXTE_VALUE                                   ; 0628
                    52       04    AC  D0 0000E          MOVL    OPTION_BLOCK, R2                             ; 0633
                             04    A2  B5 00012          TSTW    4(R2)                                        ;
                                   3D  13 00015          BEQL    4$                                           ;
                                   53  DD 00017          PUSHL   R3                                           ; 0639
                             08    A2  DD 00019          PUSHL   8(R2)                                        ; 0640
                    7E       04    A2  3C 0001C          MOVZWL  4(R2), -(SP)                                 ; 0639
          00000000G 00             03  FB 00020          CALLS   #3, LIB$CVT_DTB                              ;
                    04             50  E8 00027          BLBS    STATUS, 1$                                   ;
                                   50  DD 0002A          PUSHL   STATUS                                       ; 0647
                                   14  11 0002C          BRB     3$                                           ; 0646
                    50             63  D0 0002E 1$:      MOVL    EXTE_VALUE, R0                               ; 0651
                                   09  19 00031          BLSS    2$                                           ;
          0000FFFF  8F             50  D1 00033          CMPL    R0, #65535                                   ; 0653
                                   18  15 0003A          BLEQ    4$                                           ;
                         00000000* 8F  DD 0003C 2$:      PUSHL   #<<<SET$_FACILITY@16>+4584>+2>               ; 0657
                             04    A2  9F 00042 3$:      PUSHAB  4(R2)                                        ; 0656
                                   01  DD 00045          PUSHL   #1                                           ;
                         00000000* 8F  DD 00047          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>               ;
          00000000G 00             04  FB 0004D          CALLS   #4, LIB$STOP                                 ;
                    50             01  D0 00054 4$:      MOVL    #1, R0                                       ; 0660
                                       04 00057          RET                                                  ; 0661

; Routine Size:  88 bytes,    Routine Base:  $CODE$ + 019C
```

```
:  683      0662   1 GLOBAL ROUTINE fprot_act (option_block,callback) =
:  684      0663   1 !++
:  685      0664   1 !
:  686      0665   1 ! This is the action routine for the /FILE_PROTECTION qualifier of
:  687      0666   1 ! SET VOLUME.  The protection is parsed and stored away.  If the
:  688      0667   1 ! protection is not valid, a fatal error message is issued.
:  689      0668   1 !
:  690      0669   1 !--
:  691      0670   2 BEGIN
:  692      0671   2
:  693      0672   2 LOCAL status;                               ! Status return
:  694      0673   2
:  695      0674   2 MAP option_block : REF BBLOCK;              ! Define the option block
:  696      0675   2
:  697      0676   2 !
:  698      0677   2 ! Stuff the TPARSE block with the string
:  699      0678   2 !
:  700      0679   2 tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
:  701      0680   2 tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
:  702      0681   2
:  703      0682   2 fprot_value = 0;                            ! Initialize file protection value
:  704      0683   2
:  705      0684   2 !
:  706      0685   2 ! Now to parse the protection given.  When finished, FPROT_VALUE will
:  707      0686   2 ! have the following values:
:  708      0687   2 !
:  709      0688   2 ! FPROT_VALUE[low_word] = protection value
:  710      0689   2 ! FPROT_VALUE[high_word] = group mask i.e. SYSTEM, OWNER, GROUP, WORLD
:  711      0690   2 !
:  712      0691   3 IF NOT (status = LIB$TPARSE(tparse_block,
:  713      0692   3                             pro_state,
:  714      0693   3                             pro_keys))
:  715      0694   2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
:  716      0695   2                  1,
:  717      0696   2                  option_block[cli$q_qdvaldesc],
:  718      0697   2                  .status);
:  719      0698   2 RETURN true;
:  720      0699   1 END;



                                 000C 00000           .ENTRY  FPROT_ACT, Save R2,R3                         : 0662
            53 00000000'    EF    9E 00002           MOVAB   TPARSE_BLOCK+8, R3
            52        04    AC    D0 00009           MOVL    OPTION_BLOCK, R2                               : 0679
            63        04    A2    3C 0000D           MOVZWL  4(R2), TPARSE_BLOCK+8
      04    A3        08    A2    D0 00011           MOVL    8(R2), TPARSE_BLOCK+12                         : 0680
               00000000G    00    D4 00016           CLRL    FPROT_VALUE                                    : 0682
               00000000'    EF    9F 0001C           PUSHAB  PRO_KEYS                                       : 0691
               00000000'    EF    9F 00022           PUSHAB  PRO_STATE
                      F8    A3    9F 00028           PUSHAB  TPARSE_BLOCK
  00000000G  00             03    FB 0002B           CALLS   #3, LIB$TPARSE
             14             50    E8 00032           BLBS    STATUS, 1$
                            50    DD 00035           PUSHL   STATUS                                         : 0697
                      04    A2    9F 00037           PUSHAB  4(R2)                                          : 0696
                            01    DD 0003A           PUSHL   #1                                             :
                              00000000*  8F  DD 0003C          PUSHL    #<<<SET$_FACILITY@16>+4344>+2>              ;
             000000006  00               04  FB 00042          CALLS    #4, LIB$STOP                                ;
                        50               01  D0 00049 1$:      MOVL     #1, R0                                      ; 0698
                                             04 0004C          RET                                                  ; 0699

; Routine Size:  77 bytes,    Routine Base:  $CODE$ + 01F4
;  722        0700   1 GLOBAL ROUTINE gbuf_act (option_block,callback) =
;  723        0701   1 !++
;  724        0702   1 !
;  725        0703   1 ! This is the action routine for the GLOBAL_BUFFER qualifier.  The number of
;  726        0704   1 ! global buffers desired is collected.
;  727        0705   1 !
;  728        0706   1 !--
;  729        0707   2 BEGIN
;  730        0708   2
;  731        0709   2 LOCAL
;  732        0710   2     status,
;  733        0711   2     desc : BBLOCK[dsc$c_s_bln];
;  734        0712   2
;  735        0713   2 MAP
;  736        0714   2     option_block : REF BBLOCK;          ! Define the CLI options block
;  737        0715   2
;  738        0716   2 !
;  739        0717   2 ! Convert the value given (in ASCII) to a numeric value.
;  740        0718   2 !
;  741        0719   3 IF NOT (status = LIB$CVT_DTB(.option_block[cli$w_qdvalsiz],
;  742        0720   3                              .option_block[cli$a_qdvaladr],
;  743        0721   3                              gbuf_value))
;  744        0722   2 THEN
;  745        0723   3     BEGIN
;  746        0724   3     SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  747        0725   3                 1,
;  748        0726   3                 option_block[cli$q_qdvaldesc],
;  749        0727   3                 .status);
;  750        0728   3     END
;  751        0729   2 ELSE
;  752        0730   3     BEGIN
;  753        0731   3 !
;  754        0732   3 ! If the value is not a word or less in length, signal an error.
;  755        0733   3 !
;  756        0734   4     IF NOT (.gbuf_value GEQ 0 AND .gbuf_value LEQ 65535)
;  757        0735   3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  758        0736   3                      1,
;  759        0737   3                      option_block[cli$q_qdvaldesc],
;  760        0738   3                      set$_facility^16 + shr$_valerr + sts$k_error);
;  761        0739   2     END;
;  762        0740   2
;  763        0741   2 RETURN true;
;  764        0742   1 END;



                                     000C 00000          .ENTRY  GBUF_ACT, Save R2,R3                        ; 0700
                  53 00000000G   00    9E 00002          MOVAB   GBUF_VALUE, R3                              ;
                  5E             08    C2 00009          SUBL2   #8, SP                                      ;
                                 53    DD 0000C          PUSHL   R3                                          ; 0719
                  52        04   AC    D0 0000E          MOVL    OPTION_BLOCK, R2                            ; 0720
                            08   A2    DD 00012          PUSHL   8(R2)                                       ;
                  7E        04   A2    3C 00015          MOVZWL  4(R2), -(SP)                                ; 0719
         00000000G 00            03    FB 00019          CALLS   #3, LIB$CVT_DTB                             ;
                  04             50    E8 00020          BLBS    STATUS, 1$                                  ;
```

```
                                             50  DD 00023          PUSHL   STATUS                                    ; 0727
                                             14  11 00025          BRB     3$                                        ; 0726
                          50                 63  D0 00027 1$:      MOVL    GBUF_VALUE, R0                            ; 0734
                                             09  19 0002A          BLSS    2$                                        ;
              0000FFFF    8F                 50  D1 0002C          CMPL    R0, #65535                                ;
                                             18  15 00033          BLEQ    4$                                        ;
                                 00000000*   8F  DD 00035 2$:      PUSHL   #<<<SET$_FACILITY@16>+4584>+2>            ; 0738
                                       04    A2  9F 0003B 3$:      PUSHAB  4(R2)                                     ; 0737
                                             01  DD 0003E          PUSHL   #1                                        ;
                                 00000000*   8F  DD 00040          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>            ;
              00000000G   00                 04  FB 00046          CALLS   #4, LIB$STOP                              ;
                          50                 01  D0 0004D 4$:      MOVL    #1, R0                                    ; 0741
                                                 04 00050          RET                                               ; 0742

; Routine Size:  81 bytes,    Routine Base:  $CODE$ + 0241
;  766       0743  1 GLOBAL ROUTINE journal_act (option_block,callback) =
;  767       0744  1 !++
;  768       0745  1 !
;  769       0746  1 !  This is the action routine for the /JOURNAL qualifier.  Based on the
;  770       0747  1 !  journal types set, specific journaling bits are set.
;  771       0748  1 !
;  772       0749  1 !--
;  773       0750  2 BEGIN
;  774       0751  2
;  775       0752  2 LOCAL
;  776       0753  2     status;
;  777       0754  2
;  778       0755  2 MAP
;  779       0756  2     option_block : REF BBLOCK;
;  780       0757  2
;  781       0758  2 !
;  782       0759  2 ! Use TPARSE to parse the journal list.
;  783       0760  2 !
;  784       0761  2
;  785       0762  2 tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
;  786       0763  2 tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
;  787       0764  2
;  788       0765  3 IF NOT (status = LIB$TPARSE(tparse_block, journal_state, journal_keys))
;  789       0766  2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  790       0767  2                 1,
;  791       0768  2                 option_block[cli$q_qdvaldesc],
;  792       0769  2                 .status);
;  793       0770  2 !
;  794       0771  2 ! If both RU and RUM were specified, then signal a syntax error.
;  795       0772  2 !
;  796       0773  2
;  797       0774  3 IF (.setfile$jflags[jrnl_ru] AND .setfile$jflags[jrnl_rum])
;  798       0775  2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  799       0776  2                 1,
;  800       0777  2                 option_block[cli$q_qdvaldesc],
;  801       0778  2                 set$_facility^16 + shr$_confqual + sts$k_error);
;  802       0779  2
;  803       0780  2 RETURN true;
;  804       0781  1 END;


                                    001C 00000        .ENTRY  JOURNAL_ACT, Save R2,R3,R4                ; 0743
               54 00000000G   00     9E 00002        MOVAB   LIB$STOP, R4                              ;
               53 00000000'   EF     9E 00009        MOVAB   TPARSE_BLOCK+8, R3                        ;
               52         04  AC     D0 00010        MOVL    OPTION_BLOCK, R2                          ; 0762
               63         04  A2     3C 00014        MOVZWL  4(R2), TPARSE_BLOCK+8                     ;
         04    A3         08  A2     D0 00018        MOVL    8(R2), TPARSE_BLOCK+12                    ; 0763
                  00000000'   EF     9F 0001D        PUSHAB  JOURNAL_KEYS                              ; 0765
                  00000000'   EF     9F 00023        PUSHAB  JOURNAL_STATE                             ;
                          F8  A3     9F 00029        PUSHAB  TPARSE_BLOCK                              ;
      00000000G    00             03     FB 0002C        CALLS   #3, LIB$TPARSE                            ;
                   10             50     E8 00033        BLBS    STATUS, 1$                                ;
                                  50     DD 00036        PUSHL   STATUS                                    ; 0769
                          04  A2     9F 00038        PUSHAB  4(R2)                                     ; 0768
```

```
                                          01  DD 0003B          PUSHL   #1                                               ;
                              00000000*   8F  DD 0003D          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>                   ;
                          64              04  FB 00043          CALLS   #4, LIB$STOP                                     ;
                              00000000G   00  95 00046 1$:      TSTB    SETFILE$JFLAGS                                   ; 0774
                                          1C  18 0004C          BGEQ    2$                                               ;
                  14 00000000G  00        01  E1 0004E          BBC     #1, SETFILE$JFLAGS+1, 2$                         ;
                              00000000*   8F  DD 00056          PUSHL   #<<<SET$_FACILITY@16>+4832>+2>                   ; 0778
                                     04   A2  9F 0005C          PUSHAB  4(R2)                                            ; 0777
                                          01  DD 0005F          PUSHL   #1                                               ;
                              00000000*   8F  DD 00061          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>                   ;
                          64              04  FB 00067          CALLS   #4, LIB$STOP                                     ;
                          50              01  D0 0006A 2$:      MOVL    #1, R0                                           ; 0780
                                          04  0006D             RET                                                      ; 0781

; Routine Size:  110 bytes,    Routine Base:  $CODE$ + 0292
;  806          0782  1 GLOBAL ROUTINE label_act (option_block, callback) =
;  807          0783  1 !++
;  808          0784  1 !
;  809          0785  1 ! This is the action routine for the LABEL qualifier of SET VOLUME.  It
;  810          0786  1 ! retrieves the value of the string, checks that it is no longer than
;  811          0787  1 ! twelve characters, and stores length and location in LABEL_VALUE.
;  812          0788  1 !
;  813          0789  1 !--
;  814          0790  2 BEGIN
;  815          0791  2
;  816          0792  2 LOCAL status;                              ! Status return
;  817          0793  2
;  818          0794  2 MAP option_block : REF BBLOCK;             ! Define the cli block
;  819          0795  2
;  820          0796  2 !
;  821          0797  2 ! Check that the string is no longer than twelve characters.
;  822          0798  2 !
;  823          0799  2 IF .option_block[cli$w_qdvalsiz] GTR 12
;  824          0800  2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  825          0801  2                  1,
;  826          0802  2                  option_block[cli$q_qdvaldesc],
;  827          0803  2                  set$_facility^16 + shr$_valerr + sts$k_error);
;  828          0804  2 !
;  829          0805  2 ! Store the location and length in LABEL_VALUE
;  830          0806  2 !
;  831          0807  2 label_value[0] = .option_block[cli$w_qdvalsiz];
;  832          0808  2 label_value[1] = .option_block[cli$a_qdvaladr];
;  833          0809  2
;  834          0810  2 RETURN true;
;  835          0811  1 END;



                                      0004 00000          .ENTRY  LABEL_ACT, Save R2                            ; 0782
                      52        04  AC   D0 00002          MOVL    OPTION_BLOCK, R2                              ; 0799
                      0C        04  A2   B1 00006          CMPW    4(R2), #12                                    ;
                                    18   1B 0000A          BLEQU   1$                                            ;
                         00000000*  8F   DD 0000C          PUSHL   #<<<SET$_FACILITY@16>+4584>+2>               ; 0803
                                04  A2   9F 00012          PUSHAB  4(R2)                                         ; 0802
                                    01   DD 00015          PUSHL   #1                                            ;
                         00000000*  8F   DD 00017          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>               ;
              00000000G  00         04   FB 0001D          CALLS   #4, LIB$STOP                                  ;
              00000000G  00     04  A2   3C 00024 1$:      MOVZWL  4(R2), LABEL_VALUE                            ; 0807
              00000000G  00     08  A2   D0 0002C          MOVL    8(R2), LABEL_VALUE+4                          ; 0808
                      50            01   D0 00034          MOVL    #1, R0                                        ; 0810
                                         04 00037          RET                                                   ; 0811

; Routine Size:  56 bytes,    Routine Base:  $CODE$ + 0300
;  837          0812  1 GLOBAL ROUTINE owner_act (option_block,callback) =
;  838          0813  1 !++
;  839          0814  1 !
;  840          0815  1 ! This is the action routine for the OWNER_UIC qualifier.  The input is
;  841          0816  1 ! parsed to obtain the group and member numbers of the UIC.
;  842          0817  1 !
;  843          0818  1 !--
;  844          0819  2 BEGIN
;  845          0820  2
;  846          0821  2 LOCAL
;  847          0822  2     status;                                 ! Status
;  848          0823  2
;  849          0824  2 MAP
;  850          0825  2     option_block : REF BBLOCK;
;  851          0826  2
;  852          0827  2 uic_value = 0;                              ! Set the UIC value to zero initially
;  853          0828  2
;  854          0829  2 !
;  855          0830  2 ! Check to see if UIC specified.  If not, use current process UIC.
;  856          0831  2 !
;  857          0832  2 IF .option_block[cli$w_qdvalsiz] EQL 0
;  858        P 0833  2 THEN $GETJPI(ITMLST = UPLIT(WORD(4,jpi$_uic),
;  859        P 0834  2                                 uic_value,
;  860        P 0835  2                                 0,
;  861          0836  3                                 0))
;  862          0837  2 ELSE
;  863          0838  3     BEGIN
;  864          0839  3     tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
;  865          0840  3     tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
;  866          0841  4     IF NOT (status = lib$tparse(tparse_block,
;  867          0842  4                                owner_state,
;  868          0843  4                                owner_keys))
;  869          0844  3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  870          0845  3                 1,
;  871          0846  3                 option_block[cli$q_qdvaldesc]);
;  872          0847  3     IF NOT .setfile$flags[qual_parent]
;  873          0848  3     THEN
;  874          0849  4         BEGIN
;  875          0850  6         IF NOT ((.group LEQ %O'377' AND .group GEQ 0)
;  876          0851  5                 AND
;  877          0852  5             (.member LEQ %O'377' AND .member GEQ 0))
;  878          0853  4         THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
;  879          0854  4                     1,
;  880          0855  4                     option_block[cli$q_qdvaldesc],
;  881          0856  4                     set$_facility^16 + shr$_valerr + sts$k_error)
;  882          0857  4         ELSE uic_value = .group^16 + .member;
;  883          0858  3         END;
;  884          0859  2     END;
;  885          0860  2
;  886          0861  2 RETURN true;
;  887          0862  1 END;


                                                         .PSECT  $PLIT$,NOWRT,NOEXE,2

                                    0304  0004  00000 P.AAA:  .WORD   4, 772                                          :
```

```
                                                                 G 5
SETACT                                                  16-Sep-1984 01:06:01    VAX-11 Bliss-32 V4.0-742              Page  50
V04-000                                                 14-Sep-1984 12:08:59    [CLIUTL.SRC]SETACT.B32;1                    (26)

                                   00000000G  00004             .ADDRESS UIC_VALUE                              ;
                         00000000  00000000   00008             .LONG    0, 0                                   ;

                                                                .EXTRN   SYS$GETJPI

                                                                .PSECT   $CODE$,NOWRT,2

                                          007C 00000            .ENTRY   OWNER_ACT, Save R2,R3,R4,R5,R6         ; 0812
                     56 00000000G  00   9E 00002            MOVAB    UIC_VALUE, R6                          ;
                     55 00000000G  00   9E 00009            MOVAB    MEMBER, R5                             ;
                     54 00000000G  00   9E 00010            MOVAB    LIB$STOP, R4                           ;
                     53 00000000'  EF   9E 00017            MOVAB    TPARSE_BLOCK+8, R3                     ;
                                   66   D4 0001E            CLRL     UIC_VALUE                              ; 0827
                     52         04 AC   D0 00020            MOVL     OPTION_BLOCK, R2                       ; 0832
                                04 A2   B5 00024            TSTW     4(R2)                                  ;
                                   17   12 00027            BNEQ     1$                                     ;
                                   7E   7C 00029            CLRQ     -(SP)                                  ; 0836
                                   7E   D4 0002B            CLRL     -(SP)                                  ;
                        00000000'  EF   9F 0002D            PUSHAB   P.AAA                                  ;
                                   7E   7C 00033            CLRQ     -(SP)                                  ;
                                   7E   D4 00035            CLRL     -(SP)                                  ;
           00000000G  00           07   FB 00037            CALLS    #7, SYS$GETJPI                         ;
                                   7A   11 0003E            BRB      5$                                     ;
                     63         04 A2   3C 00040 1$:        MOVZWL   4(R2), TPARSE_BLOCK+8                  ; 0839
                04   A3         08 A2   D0 00044            MOVL     8(R2), TPARSE_BLOCK+12                 ; 0840
                        00000000'  EF   9F 00049            PUSHAB   OWNER_KEYS                             ; 0841
                        00000000'  EF   9F 0004F            PUSHAB   OWNER_STATE                            ;
                                F8 A3   9F 00055            PUSHAB   TPARSE_BLOCK                           ;
           00000000G  00           03   FB 00058            CALLS    #3, LIB$TPARSE                         ;
                      0E           50   E8 0005F            BLBS     STATUS, 2$                             ;
                                04 A2   9F 00062            PUSHAB   4(R2)                                  ; 0846
                                   01   DD 00065            PUSHL    #1                                     ;
                        00000000*  8F   DD 00067            PUSHL    #<<<SET$_FACILITY@16>+4344>+2>         ;
                      64           03   FB 0006D            CALLS    #3, LIB$STOP                           ;
        42 00000000G  00           03   E0 00070 2$:        BBS      #3, SETFILE$FLAGS+2, 5$                ; 0847
                     50 00000000G  00   D0 00078            MOVL     GROUP, R0                              ; 0850
           000000FF   8F           50   D1 0007F            CMPL     R0, #255                               ;
                                   14   14 00086            BGTR     3$                                     ;
                                   50   D5 00088            TSTL     R0                                     ;
                                   10   19 0008A            BLSS     3$                                     ;
                      51           65   D0 0008C            MOVL     MEMBER, R1                             ; 0852
           000000FF   8F           51   D1 0008F            CMPL     R1, #255                               ;
                                   04   14 00096            BGTR     3$                                     ;
                                   51   D5 00098            TSTL     R1                                     ;
                                   16   18 0009A            BGEQ     4$                                     ;
                        00000000*  8F   DD 0009C 3$:        PUSHL    #<<<SET$_FACILITY@16>+4584>+2>         ; 0856
                                04 A2   9F 000A2            PUSHAB   4(R2)                                  ; 0855
                                   01   DD 000A5            PUSHL    #1                                     ;
                        00000000*  8F   DD 000A7            PUSHL    #<<<SET$_FACILITY@16>+4344>+2>         ;
                      64           04   FB 000AD            CALLS    #4, LIB$STOP                           ;
                                   08   11 000B0            BRB      5$                                     ;
        50            50           10   78 000B2 4$:        ASHL     #16, R0, R0                            ; 0857
        66            50           65   C1 000B6            ADDL3    MEMBER, R0, UIC_VALUE                  ;
                      50           01   D0 000BA 5$:        MOVL     #1, R0                                 ; 0861
                                        04 000BD            RET                                             ; 0862

; Routine Size:  190 bytes,    Routine Base:  $CODE$ + 0338
```

```
GLOBAL ROUTINE retent_act (option_block,callback) =
!++
!
! This is the action routine for the /RETENTION qualifier.
! The minimum retention value must be given.  If no maximum retention value is
! specified, a value of twice the minimum (but no more than a week more than
! the minimum) is used.
!
!--
BEGIN

LOCAL
    status,
    temp_desc : BBLOCK[dsc$c_s_bln];

MAP
    option_block : REF BBLOCK;          ! Define the CLI options block


!
! Parse the input, to obtain the minimum and maximum retention times.
!

CH$FILL(0, 8, retmin_value);            ! Zero minimum value
CH$FILL(0, 8, retmax_value);            ! Zero maximum value

tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
IF NOT (status = lib$tparse(tparse_block, ret_state, ret_keys))
THEN
    BEGIN
    SIGNAL(set$_facility^16 + shr$_syntax + sts$k_error,
           1,
           option_block[cli$q_qdvaldesc]);
    RETURN false;                       ! If error in parse, return false
    END;

!
! If a minimum value was not supplied, signal an error
!

IF .retmin_value[0] EQL 0
THEN
    BEGIN
    SIGNAL(set$_facility^16 + shr$_syntax + sts$k_error,
           1,
           option_block[cli$q_qdvaldesc]);
    RETURN false;
    END;

!
! Convert the minimum retention value to 64-bit system delta time format
!
IF NOT (status = LIB$CVT_DTIME(retmin_value, temp_desc))
THEN
    BEGIN
    SIGNAL(set$_facility^16 + shr$_syntax + sts$k_error,
;   946         0920 3              1,
;   947         0921 3              retmin_value,
;   948         0922 3              .status);
;   949         0923 3      RETURN false;
;   950         0924 3      END
;   951         0925 2  ELSE CH$MOVE(8, temp_desc, retmin_value);       ! If no error, put 64-bit
;   952         0926 2                                                  ! delta time in place
;   953         0927 2
;   954         0928 2  !
;   955         0929 2  ! If a maximum value was supplied, then convert it in the same way.
;   956         0930 2  !
;   957         0931 2
;   958         0932 2  IF .retmax_value[0] NEQ 0
;   959         0933 2  THEN
;   960         0934 3      BEGIN
;   961         0935 4      IF NOT (status = LIB$CVT_DTIME(retmax_value, temp_desc))
;   962         0936 3      THEN
;   963         0937 4          BEGIN
;   964         0938 4          SIGNAL(set$_facility^16 + shr$_syntax + sts$k_error,
;   965         0939 4                  1,
;   966         0940 4                  retmax_value,
;   967         0941 4                  .status);
;   968         0942 4          RETURN .status;
;   969         0943 4          END
;   970         0944 3      ELSE CH$MOVE(8, temp_desc, retmax_value);
;   971         0945 3      END
;   972         0946 3
;   973         0947 3  !
;   974         0948 3  ! If no maximum value was supplied, then use twice the minimum value.  If this
;   975         0949 3  ! value is greater than a week, use only a week.
;   976         0950 3  !
;   977         0951 3
;   978         0952 2  ELSE calculate_max(retmin_value, retmax_value);
;   979         0953 2
;   980         0954 2  RETURN true;
;   981         0955 1  END;



                                         0FFC 00000          .ENTRY  RETENT_ACT, Save R2,R3,R4,R5,R6,R7,R8,R9,-   ; 0863
                                                                     R10,R11                                       ;
                         5B 00000000G   00   9E 00002         MOVAB   LIB$CVT_DTIME, R11                            ;
                         5A 00000000G   00   9E 00009         MOVAB   LIB$SIGNAL, R10                               ;
                         59 00000000'   EF   9E 00010         MOVAB   TPARSE_BLOCK+8, R9                            ;
                         58 00000000G   00   9E 00017         MOVAB   RETMIN_VALUE, R8                              ;
                         57 00000000G   00   9E 0001E         MOVAB   RETMAX_VALUE, R7                              ;
                         5E             08   C2 00025         SUBL2   #8, SP                                        ;
      08          00     6E             00   2C 00028         MOVC5   #0, (SP), #0, #8, RETMIN_VALUE                ; 0886
                                        68      0002D                                                               ;
      08          00     6E             00   2C 0002E         MOVC5   #0, (SP), #0, #8, RETMAX_VALUE                ; 0887
                                        67      00033                                                               ;
                         52         04  AC   D0 00034         MOVL    OPTION_BLOCK, R2                              ; 0889
                         69         04  A2   3C 00038         MOVZWL  4(R2), TPARSE_BLOCK+8                         ;
                  04     A9         08  A2   D0 0003C         MOVL    8(R2), TPARSE_BLOCK+12                        ; 0890
                            00000000'   EF   9F 00041         PUSHAB  RET_KEYS                                      ; 0891
                         00000000'  EF  9F 00047        PUSHAB  RET_STATE                             :
                                F8  A9  9F 0004D        PUSHAB  TPARSE_BLOCK                          :
            00000000G  00           03  FB 00050        CALLS   #3, LIB$TPARSE                        :
                       56           50  D0 00057        MOVL    R0, STATUS                            :
                       04           56  E9 0005A        BLBC    STATUS, 1$                            :
                                    68  D5 0005D        TSTL    RETMIN_VALUE                          : 0904
                                    10  12 0005F        BNEQ    2$                                    :
                                04  A2  9F 00061 1$:    PUSHAB  4(R2)                                 : 0909
                                    01  DD 00064        PUSHL   #1                                    :
                         00000000*  8F  DD 00066        PUSHL   #<<<SET$_FACILITY@16>+4344>+2>        :
                       6A           03  FB 0006C        CALLS   #3, LIB$SIGNAL                        :
                                    5B  11 0006F        BRB     7$                                    : 0910
                              4100  8F  BB 00071 2$:    PUSHR   #^M<R8,SP>                            : 0916
                       6B           02  FB 00075        CALLS   #2, LIB$CVT_DTIME                     :
                       56           50  D0 00078        MOVL    R0, STATUS                            :
                       11           56  E8 0007B        BLBS    STATUS, 3$                            :
                                    56  DD 0007E        PUSHL   STATUS                                : 0922
                                    58  DD 00080        PUSHL   R8                                    : 0919
                                    01  DD 00082        PUSHL   #1                                    :
                         00000000*  8F  DD 00084        PUSHL   #<<<SET$_FACILITY@16>+4344>+2>        :
                       6A           04  FB 0008A        CALLS   #4, LIB$SIGNAL                        :
                                    3D  11 0008D        BRB     7$                                    : 0923
       68              6E           08  28 0008F 3$:    MOVC3   #8, TEMP_DESC, RETMIN_VALUE           : 0925
                                    67  D5 00093        TSTL    RETMAX_VALUE                          : 0932
                                    26  13 00095        BEQL    5$                                    :
                              4080  8F  BB 00097        PUSHR   #^M<R7,SP>                            : 0935
                       6B           02  FB 0009B        CALLS   #2, LIB$CVT_DTIME                     :
                       56           50  D0 0009E        MOVL    R0, STATUS                            :
                       13           56  E8 000A1        BLBS    STATUS, 4$                            :
                                    56  DD 000A4        PUSHL   STATUS                                : 0941
                                    57  DD 000A6        PUSHL   R7                                    : 0938
                                    01  DD 000A8        PUSHL   #1                                    :
                         00000000*  8F  DD 000AA        PUSHL   #<<<SET$_FACILITY@16>+4344>+2>        :
                       6A           04  FB 000B0        CALLS   #4, LIB$SIGNAL                        :
                       50           56  D0 000B3        MOVL    STATUS, R0                            : 0942
                                        04 000B6        RET                                           :
       67              6E           08  28 000B7 4$:    MOVC3   #8, TEMP_DESC, RETMAX_VALUE           : 0944
                                    0B  11 000BB        BRB     6$                                    : 0932
                                    57  DD 000BD 5$:    PUSHL   R7                                    : 0952
                                    58  DD 000BF        PUSHL   R8                                    :
            00000000G  00           02  FB 000C1        CALLS   #2, CALCULATE_MAX                     :
                       50           01  D0 000C8 6$:    MOVL    #1, R0                                : 0954
                                        04 000CB        RET                                           :
                                    50  D4 000CC 7$:    CLRL    R0                                    : 0955
                                        04 000CE        RET                                           :

; Routine Size:  207 bytes,    Routine Base:  $CODE$ + 03F6
;  983          0956  1 ROUTINE test_char =
;  984          0957  1 !++
;  985          0958  1 !
;  986          0959  1 !  This routine is used by TPARSE to process the /RETENTION values.
;  987          0960  1 !
;  988          0961  1 !  NOTE that this routine references the Argument Pointer (AP) directly,
;  989          0962  1 !  due to the fact that TPARSE does not follow the calling standard.
;  990          0963  1 !
;  991          0964  1 !--
;  992          0965  1
;  993          0966  2 BEGIN
;  994          0967  2
;  995          0968  2 BUILTIN AP;                                      ! Declare the argument pointer
;  996          0969  2
;  997          0970  2 LOCAL
;  998          0971  2     ptr,
;  999          0972  2     char : BYTE;
; 1000          0973  2
; 1001          0974  2 ptr = .ap + $BYTEOFFSET(tpa$b_char);             ! Look at the character just read
; 1002          0975  2 char = CH$RCHAR(.ptr);
; 1003          0976  2
; 1004          0977  2 IF .char EQL ','
; 1005          0978  2 THEN RETURN false                                ! If a comma, then end of string
; 1006          0979  2 ELSE RETURN true;                                ! Else continue processing
; 1007          0980  2
; 1008          0981  1 END;



                                    0000 00000 TEST_CHAR:
                                                      .WORD   Save nothing                                  ; 0956
                         50      18   AC  9E 00002    MOVAB   24(AP), PTR                                   ; 0974
                         51           60  90 00006    MOVB    (PTR), CHAR                                   ; 0975
                         2C           51  91 00009    CMPB    CHAR, #44                                     ; 0977
                                      03  12 0000C    BNEQ    1$                                            ;
                                      50  D4 0000E    CLRL    R0                                            ; 0979
                                          04 00010    RET                                                   ;
                         50           01  D0 00011 1$: MOVL   #1, R0                                        ;
                                          04 00014    RET                                                   ; 0981

; Routine Size:  21 bytes,    Routine Base:  $CODE$ + 04C5
```

```
   1 GLOBAL ROUTINE user_act (option_block, callback) =
   1 !++
   1 !
   1 ! This is the action routine for the USER_NAME qualifier of SET VOLUME.  It
   1 ! retrieves the value of the string, checks that it is no longer than
   1 ! twelve characters, and stores a descriptor pointing to it.
   1 !
   1 !--
   2 BEGIN
   2
   2 OWN user_label : VECTOR[12,BYTE];      ! Place to put process username
   2
   2 LOCAL status;                          ! Status return
   2
   2 MAP option_block : REF BBLOCK;         ! Define the cli block
   2
   2 !
   2 ! If no username was specified, use the current process username.
   2 !
   2 IF .option_block[cli$w_qdvalsiz] EQL 0
   2 THEN
   3     BEGIN
P  3     $GETJPI(ITMLST = UPLIT(WORD(4, jpi$_username),      ! Get the username
P  3                         user_label,                      ! Store it here
P  3                         user_value[0],                   ! Store length here
   3                         0));
   3     user_value[1] = user_label;
   3     END
   3
   2 ELSE
   3     BEGIN
   3
   3 !
   3 ! Check that the string is no longer than twelve characters.
   3 !
   3     IF .option_block[cli$w_qdvalsiz] GTR 12
   3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
   3                     1,
   3                     option_block[cli$q_qdvaldesc],
   3                     set$_facility^16 + shr$_valerr + sts$k_error);
   3 !
   3 ! Record the length and location in USER_VALUE.
   3 !
   3     user_value[0] = .option_block[cli$w_qdvalsiz];
   3     user_value[1] = .option_block[cli$a_qdvaladr];
   3     END;
   2
   2 RETURN true;
   1 END;


                                                         .PSECT  $PLIT$,NOWRT,NOEXE,2

                       0202  0004  00010 P.AAB:          .WORD   4, 514
           00000000G 00000000'  00014                    .ADDRESS USER_LABEL, USER_VALUE
                       00000000  0001C                   .LONG   0
```

```
                                                                    .PSECT  $OWN$,NOEXE,2

                                                  0002C USER_LABEL:
                                                                    .BLKB   12


                                                                    .PSECT  $CODE$,NOWRT,2

                                           000C 00000               .ENTRY  USER_ACT, Save R2,R3                          ; 0982
                  53 00000000G  00    9E 00002               MOVAB   USER_VALUE+4, R3                              ;
                  52         04  AC    D0 00009               MOVL    OPTION_BLOCK, R2                              ; 1001
                             04  A2    B5 0000D               TSTW    4(R2)                                         ;
                                 1E    12 00010               BNEQ    1$                                            ;
                                 7E    7C 00012               CLRQ    -(SP)                                         ; 1007
                                 7E    D4 00014               CLRL    -(SP)                                         ;
                     00000000'  EF    9F 00016               PUSHAB  P.AAB                                         ;
                                 7E    7C 0001C               CLRQ    -(SP)                                         ;
                                 7E    D4 0001E               CLRL    -(SP)                                         ;
         00000000G  00           07    FB 00020               CALLS   #7, SYS$GETJPI                                ;
                  63 00000000'  EF    9E 00027               MOVAB   USER_LABEL, USER_VALUE+4                      ; 1008
                                 27    11 0002E               BRB     3$                                            ; 1001
                  0C         04  A2    B1 00030 1$:           CMPW    4(R2), #12                                    ; 1017
                                 18    1B 00034               BLEQU   2$                                            ;
                     00000000*  8F    DD 00036               PUSHL   #<<<SET$_FACILITY@16>+4584>+2>               ; 1021
                             04  A2    9F 0003C               PUSHAB  4(R2)                                         ; 1020
                                 01    DD 0003F               PUSHL   #1                                            ;
                     00000000*  8F    DD 00041               PUSHL   #<<<SET$_FACILITY@16>+4344>+2>               ;
         00000000G  00           04    FB 00047               CALLS   #4, LIB$STOP                                  ;
                FC  A3       04  A2    3C 0004E 2$:           MOVZWL  4(R2), USER_VALUE                             ; 1025
                    63       08  A2    D0 00053               MOVL    8(R2), USER_VALUE+4                           ; 1026
                    50           01    D0 00057 3$:           MOVL    #1, R0                                        ; 1029
                                       04 0005A               RET                                                   ; 1030

; Routine Size:  91 bytes,    Routine Base:  $CODE$ + 04DA
; 1060      1031  1 GLOBAL ROUTINE vprot_act (option_block, callback) =
; 1061      1032  1 !++
; 1062      1033  1 !
; 1063      1034  1 ! This is the action routine for the PROTECTION qualifier of SET VOLUME.
; 1064      1035  1 ! The protection is parsed and stored.
; 1065      1036  1 !
; 1066      1037  1 !--
; 1067      1038  2 BEGIN
; 1068      1039  2
; 1069      1040  2 LOCAL
; 1070      1041  2     status,                         ! Status return
; 1071      1042  2     temp;                           ! Temporary place for FPROT_VALUE
; 1072      1043  2
; 1073      1044  2 MAP option_block : REF BBLOCK;  ! Define CLI block
; 1074      1045  2
; 1075      1046  2 !
; 1076      1047  2 ! Stuff the TPARSE block with the string
; 1077      1048  2 !
; 1078      1049  2 tparse_block[tpa$l_stringcnt] = .option_block[cli$w_qdvalsiz];
; 1079      1050  2 tparse_block[tpa$l_stringptr] = .option_block[cli$a_qdvaladr];
; 1080      1051  2
; 1081      1052  2 temp = .fprot_value;                            ! Save contents of FPROT
; 1082      1053  2 fprot_value = 0;                                ! Initialize file protection value
; 1083      1054  2
; 1084      1055  2 !
; 1085      1056  2 ! Now to parse the protection given.  When finished, FPROT_VALUE will
; 1086      1057  2 ! have the following values:
; 1087      1058  2 !
; 1088      1059  2 ! FPROT_VALUE[low_word] = protection value
; 1089      1060  2 ! FPROT_VALUE[high_word] = group mask i.e. SYSTEM, OWNER, GROUP, WORLD
; 1090      1061  2 !
; 1091      1062  3 IF NOT (status = LIB$TPARSE(tparse_block,
; 1092      1063  3                             pro_state,
; 1093      1064  3                             pro_keys))
; 1094      1065  2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
; 1095      1066  2                 1,
; 1096      1067  2                 option_block[cli$q_qdvaldesc],
; 1097      1068  2                 .status);
; 1098      1069  2
; 1099      1070  2 vprot_value = .fprot_value;             ! Store VPROT value
; 1100      1071  2 fprot_value = .temp;                    ! Restore FPROT value
; 1101      1072  2
; 1102      1073  2 RETURN true;
; 1103      1074  1 END;


                              003C 00000     .ENTRY  VPROT_ACT, Save R2,R3,R4,R5              ; 1031
            55 00000000'  EF  9E 00002     MOVAB   TPARSE_BLOCK+8, R5                       ;
            54 00000000G  00  9E 00009     MOVAB   FPROT_VALUE, R4                          ;
            52        04  AC  D0 00010     MOVL    OPTION_BLOCK, R2                         ; 1049
            65        04  A2  3C 00014     MOVZWL  4(R2), TPARSE_BLOCK+8                    ;
       04   A5        08  A2  D0 00018     MOVL    8(R2), TPARSE_BLOCK+12                   ; 1050
            53            64  D0 0001D     MOVL    FPROT_VALUE, TEMP                        ; 1052
                          64  D4 00020     CLRL    FPROT_VALUE                              ; 1053
```

```
                              00000000'  EF  9F 00022          PUSHAB  PRO_KEYS                                          ; 1062
                              00000000'  EF  9F 00028          PUSHAB  PRO_STATE                                         ;
                                     F8  A5  9F 0002E          PUSHAB  TPARSE_BLOCK                                      ;
               00000000G  00             03  FB 00031          CALLS   #3, LIB$TPARSE                                    ;
                          14             50  E8 00038          BLBS    STATUS, 1$                                        ;
                                         50  DD 0003B          PUSHL   STATUS                                            ; 1068
                                     04  A2  9F 0003D          PUSHAB  4(R2)                                             ; 1067
                                         01  DD 00040          PUSHL   #1                                                ;
                              00000000*  8F  DD 00042          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>                    ;
               00000000G  00             04  FB 00048          CALLS   #4, LIB$STOP                                      ;
               00000000G  00             64  D0 0004F  1$:     MOVL    FPROT_VALUE, VPROT_VALUE                          ; 1070
                          64             53  D0 00056          MOVL    TEMP, FPROT_VALUE                                 ; 1071
                          50             01  D0 00059          MOVL    #1, R0                                            ; 1073
                                             04 0005C          RET                                                       ; 1074

; Routine Size:  93 bytes,    Routine Base:  $CODE$ + 0535
; 1105          1075  1 GLOBAL ROUTINE vrsn_act (option_block,callback) =
; 1106          1076  1 !++
; 1107          1077  1 !
; 1108          1078  1 ! This is the action routine for the VERSION_LIMIT qualifier.  The value of
; 1109          1079  1 ! the version limit is collected.
; 1110          1080  1 !
; 1111          1081  1 !--
; 1112          1082  2 BEGIN
; 1113          1083  2
; 1114          1084  2 LOCAL
; 1115          1085  2     status,
; 1116          1086  2     desc : BBLOCK[dsc$c_s_bln];
; 1117          1087  2
; 1118          1088  2 MAP
; 1119          1089  2     option_block : REF BBLOCK;          ! Define the CLI options block
; 1120          1090  2
; 1121          1091  2 vrsn_value = 32767;                     ! Preset to no limit
; 1122          1092  2
; 1123          1093  2 !
; 1124          1094  2 ! See if a value was present.  If yes, use it.  Otherwise, use default
; 1125          1095  2 !
; 1126          1096  2 IF .option_block[cli$w_qdvalsiz] EQL 0
; 1127          1097  2 THEN RETURN true;
; 1128          1098  2
; 1129          1099  3 IF NOT (status = LIB$CVT_DTB(.option_block[cli$w_qdvalsiz],
; 1130          1100  3                               .option_block[cli$a_qdvaladr],
; 1131          1101  3                               vrsn_value))
; 1132          1102  2 THEN
; 1133          1103  3     BEGIN
; 1134          1104  3     SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
; 1135          1105  3                 1,
; 1136          1106  3                 option_block[cli$q_qdvaldesc],
; 1137          1107  3                 .status);
; 1138          1108  3     END
; 1139          1109  2 ELSE
; 1140          1110  3     BEGIN
; 1141          1111  4     IF NOT (.vrsn_value GEQ 0 AND .vrsn_value LEQ 65535)
; 1142          1112  3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,
; 1143          1113  3                      1,
; 1144          1114  3                      option_block[cli$q_qdvaldesc],
; 1145          1115  3                      set$_facility^16 + shr$_valerr + sts$k_error);
; 1146          1116  2     END;
; 1147          1117  2
; 1148          1118  2 RETURN true;
; 1149          1119  1 END;



                                 000C 00000          .ENTRY  VRSN_ACT, Save R2,R3                                 ; 1075
            53 00000000G    00    9E 00002          MOVAB   VRSN_VALUE, R3                                       ;
            5E              08    C2 00009          SUBL2   #8, SP                                               ;
            63      7FFF    8F    3C 0000C          MOVZWL  #32767, VRSN_VALUE                                   ; 1091
            52        04    AC    D0 00011          MOVL    OPTION_BLOCK, R2                                     ; 1096
                      04    A2    B5 00015          TSTW    4(R2)                                                ;
                            3D    13 00018          BEQL    4$                                                   ;
```

```
                                        53  DD 0001A        PUSHL   R3                                   ; 1099
                                  08    A2  DD 0001C        PUSHL   8(R2)                                ; 1100
                         7E       04    A2  3C 0001F        MOVZWL  4(R2), -(SP)                         ; 1099
               00000000G 00             03  FB 00023        CALLS   #3, LIB$CVT_DTB                      ;
                         04             50  E8 0002A        BLBS    STATUS, 1$                           ;
                                        50  DD 0002D        PUSHL   STATUS                               ; 1107
                                        14  11 0002F        BRB     3$                                   ; 1106
                         50             63  D0 00031 1$:    MOVL    VRSN_VALUE, R0                       ; 1111
                                        09  19 00034        BLSS    2$                                   ;
               0000FFFF  8F             50  D1 00036        CMPL    R0, #65535                           ;
                                        18  15 0003D        BLEQ    4$                                   ;
                            00000000*   8F  DD 0003F 2$:    PUSHL   #<<<SET$_FACILITY@16>+4584>+2>       ; 1115
                                  04    A2  9F 00045 3$:    PUSHAB  4(R2)                                ; 1114
                                        01  DD 00048        PUSHL   #1                                   ;
                            00000000*   8F  DD 0004A        PUSHL   #<<<SET$_FACILITY@16>+4344>+2>       ;
               00000000G 00             04  FB 00050        CALLS   #4, LIB$STOP                         ;
                         50             01  D0 00057 4$:    MOVL    #1, R0                               ; 1118
                                            04 0005A        RET                                          ; 1119

; Routine Size:  91 bytes,    Routine Base:  $CODE$ + 0592
; 1151          1120  1 GLOBAL ROUTINE window_act (option_block, callback) =
; 1152          1121  1 !++
; 1153          1122  1 !
; 1154          1123  1 ! This is the action routine for the /WINDOWS qualifier.  It retrieves the
; 1155          1124  1 ! value and performs bounds checking on it.
; 1156          1125  1 !
; 1157          1126  1 !--
; 1158          1127  2 BEGIN
; 1159          1128  2
; 1160          1129  2 LOCAL
; 1161          1130  2     status,                   ! Status return
; 1162          1131  2     desc : BBLOCK[dsc$c_s_bln]; ! General descriptor
; 1163          1132  2
; 1164          1133  2 MAP option_block : REF BBLOCK;  ! Define the CLI block
; 1165          1134  2
; 1166          1135  2 window_value = 7;                           ! Set up the default
; 1167          1136  2
; 1168          1137  2 !
; 1169          1138  2 ! If a value was specified, use it; otherwise, use the default.
; 1170          1139  2 !
; 1171          1140  2 IF .option_block[cli$w_qdvalsiz] EQL 0
; 1172          1141  2 THEN RETURN true;
; 1173          1142  2
; 1174          1143  2 !
; 1175          1144  2 ! Convert the value
; 1176          1145  2 !
; 1177          1146  3 IF NOT (status = LIB$CVT_DTB(.option_block[cli$w_qdvalsiz],
; 1178          1147  3                           .option_block[cli$a_qdvaladr],
; 1179          1148  3                           window_value))
; 1180          1149  2 THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,  ! Signal a syntax error
; 1181          1150  2                 1,
; 1182          1151  2                 option_block[cli$q_qdvaldesc],
; 1183          1152  2                 .status)
; 1184          1153  2 ELSE
; 1185          1154  3     BEGIN
; 1186          1155  4     IF NOT (.window_value GEQ 7         ! Check that value is in range
; 1187          1156  4             AND
; 1188          1157  4         .window_value LEQ 80)
; 1189          1158  3     THEN SIGNAL_STOP(set$_facility^16 + shr$_syntax + sts$k_error,      ! If not, exit with an error.
; 1190          1159  3                     1,
; 1191          1160  3                     option_block[cli$q_qdvaldesc],
; 1192          1161  3                     set$_facility^16 + shr$_valerr + sts$k_error);
; 1193          1162  2     END;
; 1194          1163  2 RETURN true;
; 1195          1164  1 END;



                                  000C 00000          .ENTRY  WINDOW_ACT, Save R2,R3                    ; 1120
                   53 00000000G 00  9E 00002          MOVAB   WINDOW_VALUE, R3                          ;
                   5E             08  C2 00009          SUBL2   #8, SP                                    ;
                   63             07  D0 0000C          MOVL    #7, WINDOW_VALUE                          ; 1135
                   52       04    AC  D0 0000F          MOVL    OPTION_BLOCK, R2                          ; 1140
                            04    A2  B5 00013          TSTW    4(R2)                                     ;
                                  40  13 00016          BEQL    4$                                        ;
```

```
                                          53  DD 00018          PUSHL   R3                                       ; 1146
                                 08       A2  DD 0001A          PUSHL   8(R2)                                    ; 1147
                       7E        04       A2  3C 0001D          MOVZWL  4(R2), -(SP)                             ; 1146
           00000000G   00                 03  FB 00021          CALLS   #3, LIB$CVT_DTB                          ;
                       04                 50  E8 00028          BLBS    STATUS, 1$                               ;
                                          50  DD 0002B          PUSHL   STATUS                                   ; 1152
                                          17  11 0002D          BRB     3$                                       ; 1151
                       50                 63  D0 0002F  1$:     MOVL    WINDOW_VALUE, R0                         ; 1155
                       07                 50  D1 00032          CMPL    R0, #7                                   ;
                                          09  19 00035          BLSS    2$                                       ;
           00000050    8F                 50  D1 00037          CMPL    R0, #80                                  ; 1157
                                          18  15 0003E          BLEQ    4$                                       ;
                                 00000000*  8F  DD 00040  2$:     PUSHL   #<<<SET$_FACILITY@16>+4584>+2>           ; 1161
                                 04       A2  9F 00046  3$:     PUSHAB  4(R2)                                    ; 1160
                                          01  DD 00049          PUSHL   #1                                       ;
                                 00000000*  8F  DD 0004B          PUSHL   #<<<SET$_FACILITY@16>+4344>+2>           ;
           00000000G   00                 04  FB 00051          CALLS   #4, LIB$STOP                             ;
                       50                 01  D0 00058  4$:     MOVL    #1, R0                                   ; 1163
                                              04 0005B          RET                                              ; 1164

; Routine Size:  92 bytes,    Routine Base:  $CODE$ + 05ED
; 1197          1165  1 END
; 1198          1166  0 ELUDOM



                                                                              .EXTRN  LIB$SIGNAL, LIB$STOP

;                                          PSECT SUMMARY
;
;       Name                          Bytes                          Attributes
;
;   $OWN$                                56  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   _LIB$KEY0$                           40  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;   _LIB$STATE$                         642  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;   _LIB$KEY1$                          104  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(1)
;   $CODE$                             1609  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   .  ABS  .                             0  NOVEC,NOWRT,NORD ,NOEXE,NOSHR,  LCL,  ABS,  CON,NOPIC,ALIGN(0)
;   $PLIT$                               32  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                                  Library Statistics
;
;                                               -------- Symbols --------       Pages        Processing
;       File                                    Total    Loaded   Percent      Mapped       Time
;
;   _$255$DUA28:[SYSLIB]LIB.L32;1               18619        30         0        1000         00:01.8
;   _$255$DUA28:[SYSLIB]CLIMAC.L32;1               14         0         0           9         00:00.1
;   _$255$DUA28:[SYSLIB]TPAMAC.L32;1               42        29        69          14         00:00.2



;                                        COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:SETACT/OBJ=OBJ$:SETACT MSRC$:SETACT/UPDATE=(ENH$:SETACT)

; Size:          1609 code + 874 data bytes
; Run Time:         01:06.7
; Elapsed Time:     03:44.0
; Lines/CPU Min:      1049
; Lexemes/CPU-Min: 69494
; Memory Used:  274 pages
; Compilation Complete
```

0052 AH-BT13A-SE
VAX/VMS V4.0

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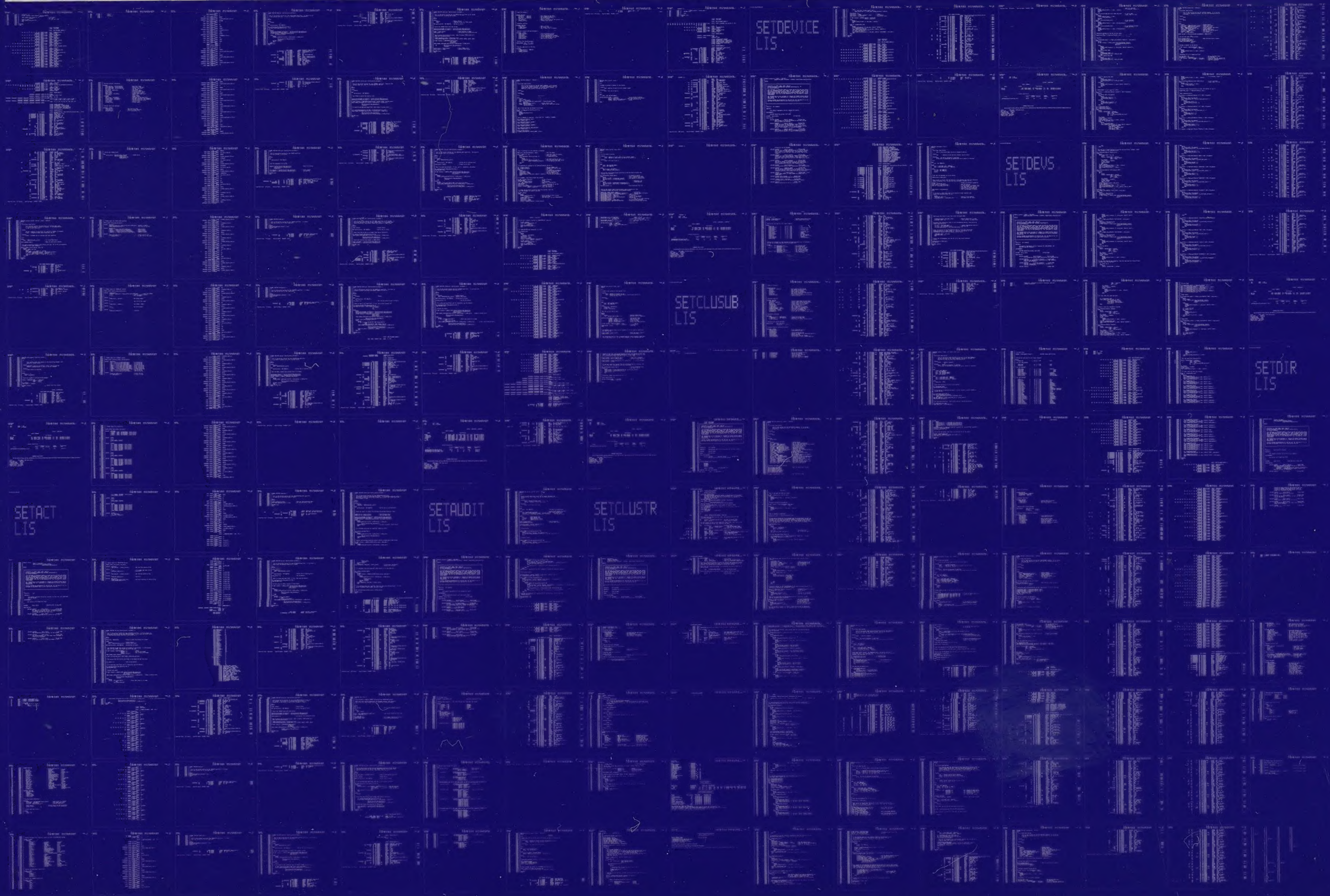
SETDEVICE
LIS

SETDEVS
LIS

SETCLUSUB
LIS

SETDIR
LIS

SETACT
LIS

SETAUDIT
LIS

SETCLUSTR
LIS